User Manual

POC-S197/S177/S157

Trusted ePlatform Services

ADVANTECH

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Declaration of Conformity

FCC Class B

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Technical Support and Assistance

1. Visit the Advantech web site at http://support.advantech.com where you can find the latest information about the product.
2. Contact your distributor, sales representative, or Advantech's customer service center for technical support if you need additional assistance. Please have the following information ready before you call:
   - Product name and serial number
   - Description of your peripheral attachments
   - Description of your software (operating system, version, application software, etc.)
   - A complete description of the problem
   - The exact wording of any error messages
   - This equipment is a source of electromagnetic waves. Before use please, make sure that there are not EMI sensitive devices in its surrounding which may cause malfunction.

Manufacturer

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Instructions for the User

The document combines text and illustrations, providing a comprehensive overview of the system. The information is presented as sequential steps of action, allowing the user to learn directly how to use the device.

The text provides explanations and instructs the user step by step in the practical use of the product, with short, clear instructions in easy-to-follow sequence.

Warnings, Cautions and Notes

Warning! *Warnings indicate conditions, which if not observed, can cause personal injury!*

Caution! *Cautions are included to help you avoid damaging hardware or losing data. e.g.*

Note! *Notes provide optional additional information.*

Explanation Of Graphical Symbols

	This symbol warns user that uninsulated voltage within the unit may have sufficient magnitude to cause electric shock. Therefore, it is dangerous to make any kind of contact with any part inside this unit.		AC Input
	This symbol alerts the user that important literature concerning the operation and maintenance of this unit has been included. Therefore, it should be read carefully in order to avoid any problems.		DC Input
	Mains Power On		Power On
	Mains Power Off		Power Off

Packing List

Before setting up the system, check that the items listed below are included and in good condition. If any item does not accord with the table, please contact your dealer immediately.

- POC-S197/ S177/ S157 series Point of Care Terminal
- CD-ROM disc-"Drivers, User's manual and Utilities"
- Mounting kits and packet of screws
- External DC adapter (Manufacturer: SINPRO Model no.: HPU100-107)

Warning! *No user serviceable parts inside, refer servicing to qualified personnel.*

Only the accessories indicated on the list of accessories above have been tested and approved to be used with the device. Accordingly it is strongly recommended that only these accessories be used in conjunction with the specific device. Otherwise the correct functioning of the device may be compromised.

Safety Instructions

1. Strictly follow these Instructions for Use, please read these safety instructions carefully.
2. Remember to keep this User's Manual for later reference, and any use of the product requires full understanding and strict observation of all portions of these instructions. Observe all WARNINGS and CAUTIONS as rendered throughout this manual and on labels on the equipment.
3. Repair of the device may also only be carried out by trained service personnel. Advantech recommends that a service contract be obtained with Advantech Service and that all repairs also be carried out by them. Otherwise the correct functioning of the device may be compromised.

Warning! *Because of the danger of electric shock, never remove the cover of a device while it is in operation or connected to a power outlet.*

4. If one of the following situations arises, get the equipment checked by service personnel:
   - The power cord or plug is damaged.
   - Liquid has penetrated into the equipment.
   - The equipment has been exposed to moisture.
   - The equipment does not work well, or you cannot get it to work according to the user's manual.
   - The equipment has been dropped and damaged.
   - The equipment has obvious signs of breakage.

5. Disconnect this equipment from any AC outlet before cleaning. Use a damp cloth. Do not use liquid or spray detergents for cleaning and keep this equipment away from humidity.

Caution! *To avoid short-circuiting and otherwise damaging the device, do not allow fluids to come in contact with the device. If fluids are accidentally spilled on the equipment, remove the affected unit from service as soon as possible and contact the service personnel to verify that patient safety is not compromised.*

6. Put this equipment on a reliable surface during installation. Dropping it or letting it fall may cause damage. For plug-in equipment, the power outlet socket must be located near the equipment and must be easily accessible.

Caution! *To prevent overheating, do not cover the openings and place the device in direct sunlight or near radiant heaters.*

7. Make sure the voltage of the power source is correct before connecting the equipment to the power outlet. Position the power cord so that people cannot step on it. Do not place anything over the power cord. If the equipment is not used for a long time, disconnect it from the power source to avoid damage by transient over voltage.

Caution! *Do not leave this equipment in an uncontrolled environment where the storage temperature is below -20° C (-4° F) or above 60° C (140° F). this may damage the equipment.*

8. If your computer clock does not keep the correct time or the BIOS configuration resets to default, the battery has no power.

Caution! *Do not replace battery yourself. Please contact a qualified technician or your retail.*

The computer is provided with a battery-powered real-time clock circuit. There is a danger of explosion if battery is incorrectly replaced. Replace only with same or equivalent type recommended by the manufacture. Discard used batteries according to the manufacturerís instructions

Caution! *The battery charging indicator is not included in this device. It shall be added to the end system assembly and be shown there.*

9. Improper installation of VESA mounting can result in serious personal injury! VESA mount installation should be done by a professional technician; please contact the service technician or your retailer if you need this service. Detailed procedures are specified in Appendix C.
10. CLASSIFICATION:
    1). Supply Class I adapter
    2). No applied part
    3). IPX1

4). Continuous Operation
5). Not AP or APG category

Warning! *This device is not suitable for use in the presence of a flammable anesthetic mixture with air, oxygen, nitrous oxide, or for life support systems.*

11. Environmental protection: follow national requirements to dispose of unit.
12. Maintenance: to properly maintain and clean the surfaces, use only the approved products or clean with a dry applicator.

Caution! *When servicing the device, always use replacement parts that are qualified to Advantech standards. Advantech cannot warrant or endorse the safe performance of third-party replacement parts for use with our medical devices.*

13. Make sure the user does not contact SIP/SOPs and the patient at the same time.
14. When networking with electrical devices, the operator is responsible for ensuring that the resulting system meets the requirements set forth by the following standards:
    - EN 60601-1 (IEC 60601-1)
      Medical electrical equipment
      Part 1: General requirements for safety
    - EN 60601-1-1 (IEC 60601-1-1)
      Medical electrical equipment
      Part 1-1: General requirements for safety
      Collateral standard: Safety requirements for Medical electrical systems
    - EN 60601-1-2 (IEC 60601-1-2)
      Medical electrical equipment
      Part 1-2: General requirements for safety
      Collateral standard: Electromagnetic compatibility; Requirements and tests

Medical Equipment
With Respect to Electric Shock, Fire, and Mechanical Hazards Only, In Accordance with UL 60601-1, CAN/CSA C22.2 No. 601.1

15. Accessory equipment connected to analog and digital interfaces must be in compliance with the respective nationally harmonized IEC standards (i.e. IEC 60950 for data processing equipment, IEC 60065 for video equipment, IEC 61010-1 for laboratory equipment, and IEC 60601-1 for medical equipment.) Furthermore all configurations shall comply with the system standard IEC 60601-1-1. Anyone who connects additional equipment to the signal input part or signal output part is configuring a medical system, and is therefore, responsible that the system complies with the requirements of the system standard IEC 60601-1-1. The unit is for exclusive interconnection with IEC 60601-1 certified equipment in the patient environment and IEC 60XXX certified equipment outside of the patient environment. If in doubt, consult the technical services department or your local representative.

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Chapter 1

General Information

1.1 Introduction

The S197/ S177/ S157 is a multimedia Intel® Core™2 Duo processor-based mobile computer that is designed to serve as a Point of Care terminal (POC). It is a PC-based system with 19”/17”/15” color TFT LCD display, a single DVI-I Port, dual on-board 10/100/1000 PCI-E Ethernet controllers, a single COM port, quad USB 2.0 ports and a 24-bit stereo audio controller. With a built-in 2.5” HDD drive, the S197/ S177/ S157 is as slim and user-friendly as a notebook computer and operates with low audible noise. For system integrators, this silent, compact, mobile and highly integrated multimedia system lets you easily build a Point of Care terminal into your applications. The low audible noise of S197/ S177/ S157 makes it an ideal and safe point of care solution for patients and hospital practitioners.

The high contrast ratio of S197/ S177/ S157 makes it a perfect image terminal for PACS and DICOM applications. The S197/ S177/ S157 is a reliable solution to your application's processing requirements.

1.2 Specifications

General

- **Dimensions (W x H x D):**
  - POC-S197: 472 x 416 x 111 mm (18.58" x 16.38" x 4.37")
  - POC-S177: 436.5 x 376.5 x 91.4 mm (17.18" x 14.82" x 3.59")
  - POC-S157: 418 x 342 x 89.3 mm (16.46" x 13.46" x 3.51")
- **Weight:**
  - POC-S197: (w/o battery) 8.1 kg
  - POC-S177: (w/o battery) 7.1 kg
  - POC-S157: (w/o battery) 5.4 kg
- **Power supply:**
  - DC model: 100 watts max External DC Adapter- (Manufacturer: SINPRO Inc. Model no.: HPU100-107) used within POC-S197/S177/S157
  - Input voltage: 100 ~ 240 V_{AC}, 47-63 Hz, 1.25 ~ 0.5 A
  - Output voltage: +18 V_{DC}, 5.55 A max.
- **Disk drive housing:** Space for one 2.5" SATA HDD
- **Entire system:** IPX1 compliant

Hardware

- **CPU:** Intel® Core 2 Duo® processor Ultra-low Voltage SU9300 1.2 GHz
- **BIOS:** SST 8 Mbit SPI Serial Flash BIOS.
- **Chipset:** Intel® GS45 Express Chipset with 82801IUX I/O Controller Hub (ICH9M-SFF)
- **Front side bus:** 800 MHz
- **RAM:** 204-pin, DDR3, SODIMM slots x 2 (max. 4 GB), Unbuffered Non ECC, capacity maximum to 4 GB
- **SATA interface:** SATA x 1. Supports one SATA device.
- **Serial ports:** RS-232 ports x 2; they are both compatible with 16C550 UARTs. COM1 has optical isolation;
- **Universal serial bus (USB) port:** USB 2.0 ports x 5 (3 external, 2 internal)
- **Expansion slot:** Mini PCI/33MHz slot x 1, Mini PCI-E(2.5 Gb/s) slot x 1

- **Watchdog timer:** Supports super I/O embedding watchdog function. Automatically generates system reset when the system stops due to a program error.
- **CMOS battery (BIOS):** 3.0 V @ 195 mA lithium battery
- **Backup battery (Optional):** 11.1 V @ 6300 mAh lithium battery
  - Formosan United Corporation or JOULES MILES CO., LTD./ POC-S1X7

Display interface

- **SDVO interface:** PERICOM PI3VDP411LS Digital Video Level Shifter from AC coupled digital video input to a DVI/HDMI transmitter
- **Display resolution:** Supports 24-bit digital output (DVI-I port) resolutions up to 1920 x 1200. (WUXGA)
- **Display type:** Simultaneously supports CRT

Audio function

- **Chipset:** Realtek ALC888, compliant with Intel HDA.
- **Audio controller:** 24-bit codec, full-duplex stereo codec
- **Audio interface:** Microphone-in, Line-out

Ethernet interface

- **Chipset:** INTEL_82574L PCI express high performance Gigabit Ethernet controller
- **Ethernet interface:** Gigabit Ethernet ports x 2, fully integrated Gigabit Ethernet Media Access Control (MAC) and Physical Layer (PHY) functions, and each provides a standard IEEE 802.3 Ethernet interface for 10/100/1000 Mbps.

Optional modules

- **Memory:** 1GB/2GB, DDR3-800 MHz SODIMM
- **HDD:** 2.5" SATA HDD
- **Mini PCI WLAN module:** 802.11a/b/g WLAN
- **Mini PCI-E WLAN module:** 802.11b/g/n WLAN

Environment

- **Temperature:** 0 ~ 40° C (32 ~ 104° F) (Operating)
- **Relative humidity:**
  - -20 ~ 60° C (Storage)
  - -20 ~ 60° C (Transportation)
  - Humidity 10 ~ 95%@40° C (non-condensing)
  - to 95% (non condensing) (Storage)
  - to 95% (Transportation)
  - Operating atmospheric pressure: 700 ~ 1060 hPa
  - Storage atmospheric pressure: 700 ~ 1060 hPa
  - Transportation atmospheric pressure: 700 ~ 1060 hPa
- **Shock:** 20 G, half sine, 11 msec duration
- **Vibration:** 0.047 double amplitude displacement (5 ~ 32 Hz), 2 G Peak (32 ~ 500 Hz)
- **Power MTBF:** 100,000 hrs
- **Altitudes:** Operational: 6,000 feet; Shipping : 40,000 feet
- **Certifications:**
  - EMC: CE, FCC approved

– Safety: UL60601-1 and EN60601-1 approved.

This device bears the CE label in accordance with the provisions of the EMC Directive 89/336/EMC and the Low Voltage Directive 73/23/EEC.

Touchscreen (optional)

Table 1.1: Touchscreen Specifications	
Type	Analog Resistive
Resolution	Continuous
Light Transmission	75%
Controller	RS-232 interface (uses COM6)
Power Consumption	+5 V @ 200 Ma
Software Driver	Supports Windows 2000,Windows XP
Durability (touches in a lifetime)	30 million

Note! *The Point of Care Terminal with the optionally installed touchscreen will share COM6. Once the touchscreen is installed, COM6 cannot be used for other purposes.*

Optional modules

- **Memory:** 1 GB/2 GB, DDR3 800 MHz DRAM
- **HDD:** 2.5" SATA HDD
- **Touchscreen:** Analog resistive

1.3 LCD Specifications

POC-S197

- **Display type:** 19" TFT LCD.
- **Resolution:** 1280 x 1024
- **Colors:** 16.7 M (8 bits/color)
- **Dot size (mm):** 0.294 x 0.294
- **Viewing angle:** 178° x 178°
- **Luminance:** 300 cd/m^2
- **Contrast ratio:** 1300 : 1
- **LCD MTBF:** 50,000 hours
- **Backlight lifetime:** 50,000 hours

POC-S177

- **Display type:** 17" TFT LCD
- **Resolution:** 1280 x 1024
- **Colors:** 16.7 M (8 bits/color)
- **Dot size (mm):** 0.264 x 0.264
- **Viewing angle:** 140° x 130°
- **Luminance:** 300 cd/m2
- **Contrast ratio:** 500 : 1
- **LCD MTBF:** 50,000 hours
- **Backlight lifetime:** 50,000 hours

POC-S157

- **Display type:** 15" TFT LCD.
- **Resolution:** 1024 x 768
- **Colors:** 262,144 (6 bits/color)
- **Dot size (mm):** 0.264 x 0.264
- **Viewing angle:** 120°
- **Luminance:** 350 cd/m^2
- **Contrast ratio:** 400 : 1
- **LCD MTBF:** 50,000 hours
- **Backlight lifetime:** 50,000 hours

1.4 Dimensions

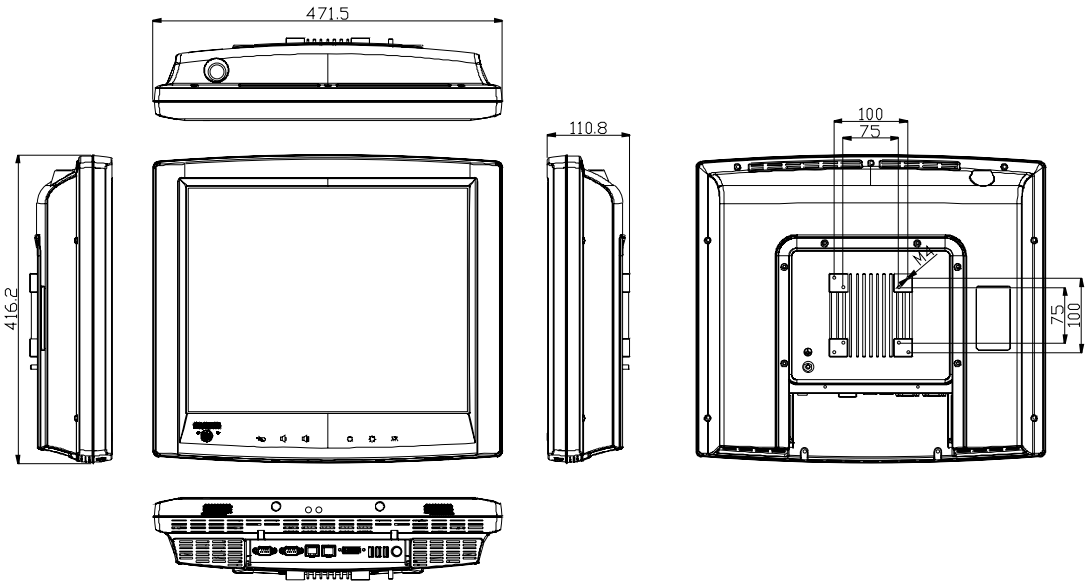


Figure 1.1 Dimensions of the POC-S197

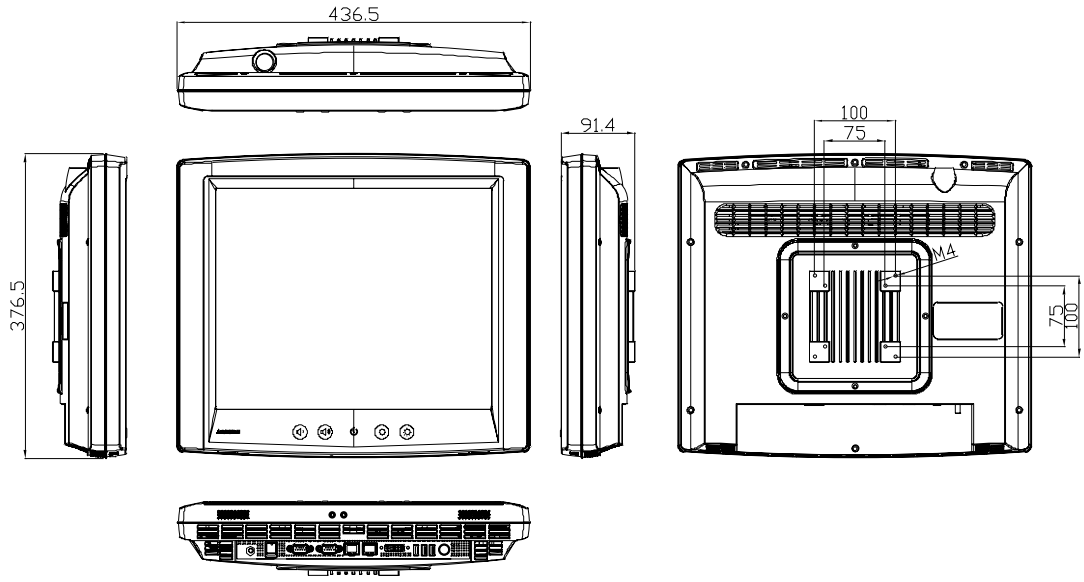


Figure 1.2 Dimensions of the POC-S177

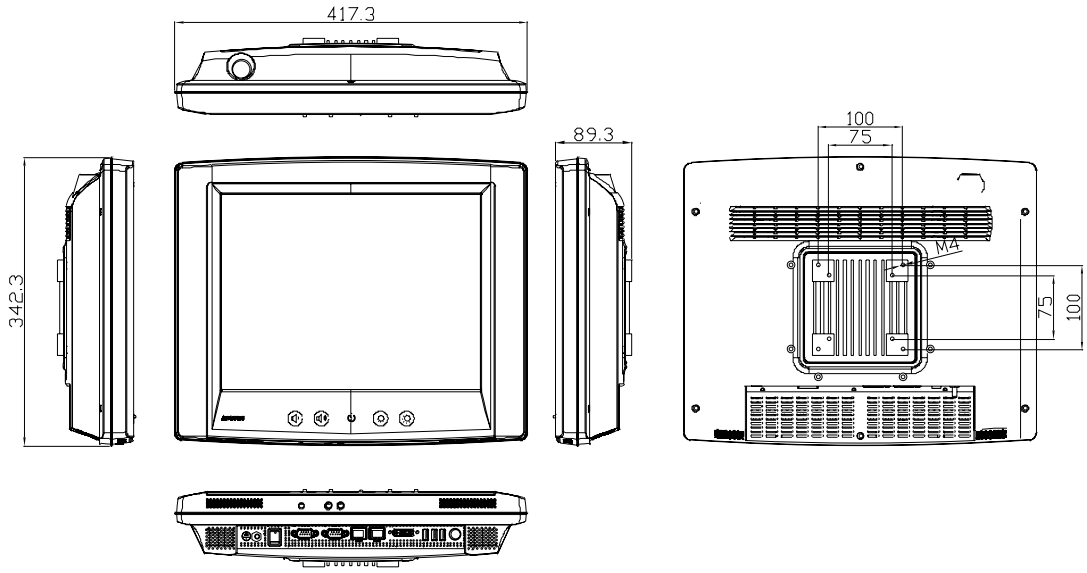


Figure 1.3 Dimensions of the POC-S157

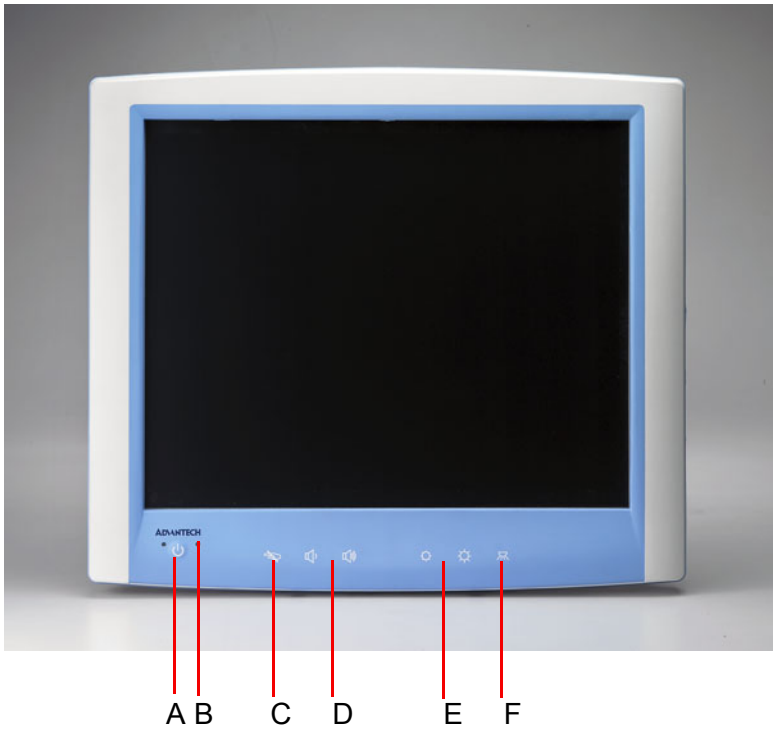


Figure 1.4 POC-S197 front panel

A. Power Switch
B. Touchscreen Light Indicator
C. Touchscreen Status Control
D. Volume Up/Down
E. Brightness Increase/Decrease
F. Read Light Control

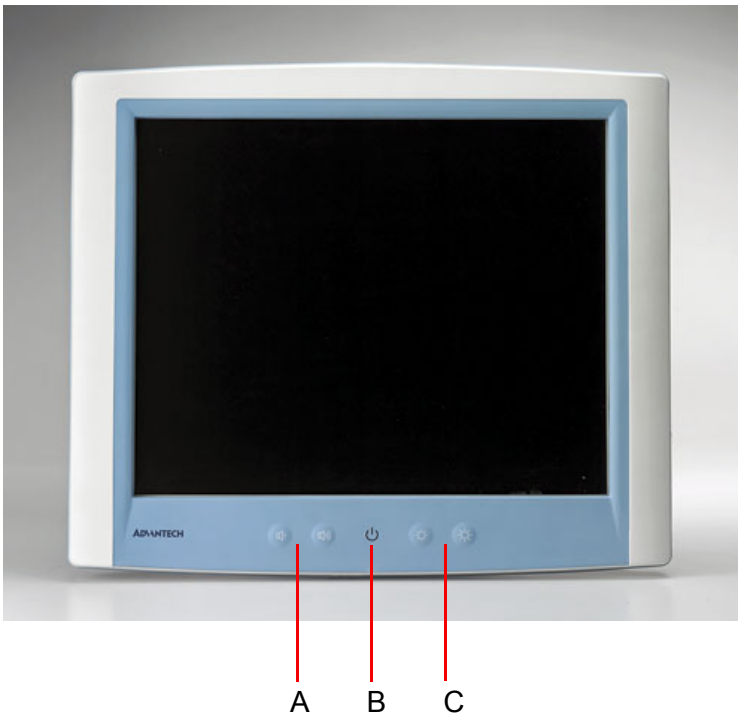


Figure 1.5 POC-S177/S157 front panel

A. Audio Control Button
B. Power Light
C. Brightness Control Button

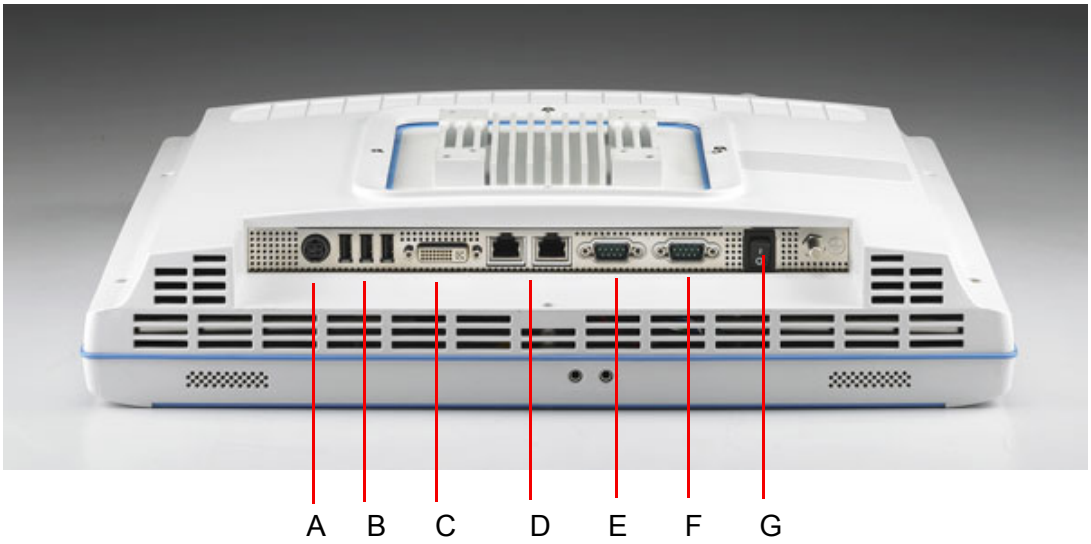


Figure 1.6 POC-S197/S177/S157 back I/O

A. 4-pin mini-DIN DC connector
B. USB 2.0 ports x 3
C. DVI-I port
D. Isolated 10/100/1000 Mbps Ethernet interface x 2 (RJ-45)
E. Isolated RS-232 COM 2 port
F. Isolated RS-232/422/485 COM 1 port (by jumper selection)

G. Power switch

1.5 Point-of-Care Terminal Cleaning and Disinfecting

During normal use of the POC (Point-of-Care Terminal) the device may become dirty and should be regularly cleaned.

Steps:

1. Prepare cleaning agent per manufacturer's instructions or hospital protocol.
2. Wipe the POC with a clean cloth that has been moistened in the cleaning solution.
3. Wipe thoroughly with a clean cloth.

Cleaning agent list: chemical disinfectants which have been tested on the POC.

No	Cleaning Agents
1	Cidex
2	Isopropyl alcohol
3	Green tinctured soap
4	Windex
5	Alcohol
6	Alcohol 70%
7	Chloride 1000PPM
8	Incidin plus
9	Incidin liquid
10	Mikrozid liquid

Caution!

- *Do not immerse or rinse the POC or its peripherals. If you accidentally spill liquid on the device, disconnect the unit from the power source. Contact your Biomed Department regarding the continued safety of the unit before placing it back in operation.*
- *Do not spray cleaning agents on the chassis.*
- *Do not use disinfectants that contain phenol. Do not autoclave or clean the POC or its peripherals with strong aromatic, chlorinated, ketone, ether, or Esther solvents, sharp tools or abrasives. Never immerse electrical connectors in water or other liquids.*

Chapter 2

System Setup

2.1 A Quick Tour of the POC-S1x7

Before you start to set up the POC-S177/S157, take a moment to become familiar with the locations and purposes of the controls, drives, connections and ports, which are illustrated in the figures below.

When you place the POC-S177/S157 upright on the desktop, its front panel appears as shown in Figure 2.1.

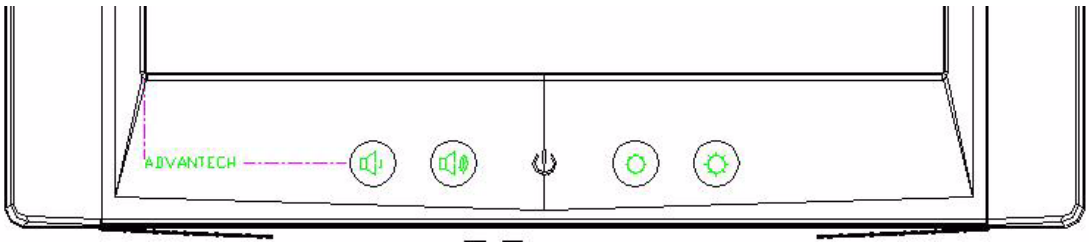


Figure 2.1 Front view of the POC-S177/S157

When you place the POC-S197 upright on the desktop, its front panel appears as shown in Figure 2.2.

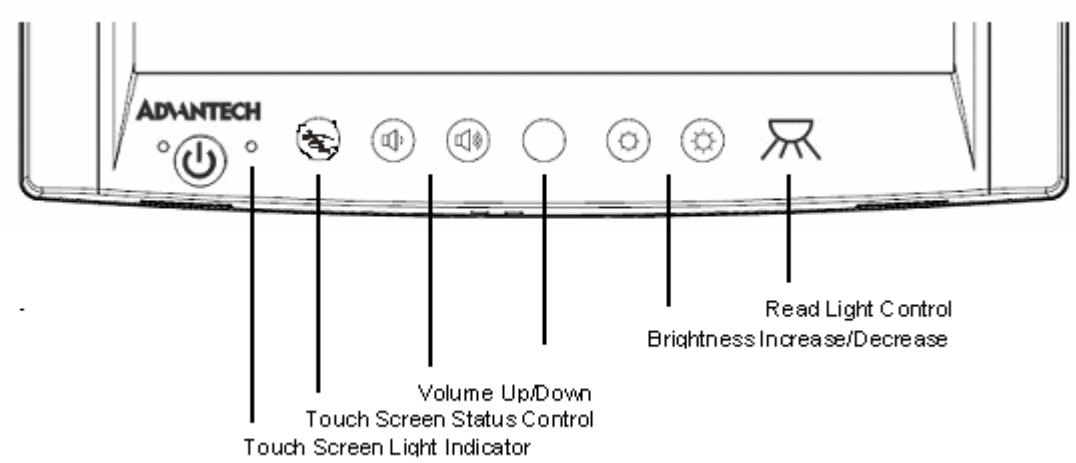


Figure 2.2 Front view of the POC-S197

When you turn the Point-of-Care terminal around and look at its rear cover, the sunken white dot section is at the bottom of the panel PC, as shown in Figure 2.3. (The I/O section includes white dot ports, including serial ports, DVI port, the Ethernet port, USB ports, the DC power adapter jack, and so on.)

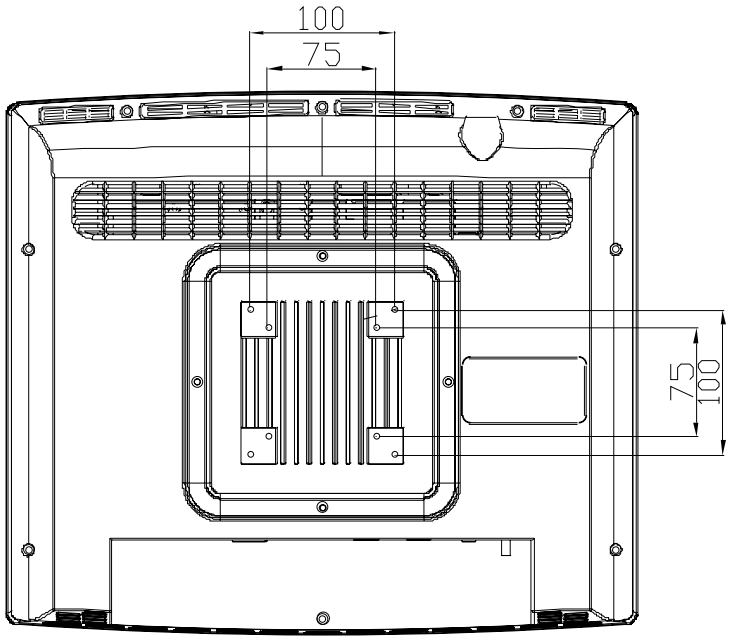


Figure 2.3 Rear view of the point of care terminal

2.2 Installation Procedures

2.2.1 Connecting the Power Cord

The POC-S177 can only be powered by a DC power adapter (SINPRO Model no.HPU100-107). Be sure to always handle the power cords by holding the plug ends only.

Follow these procedures in order:

1. Connect the female end of the power adapter to the DC jack of the panel PC. (See Figure 2.3.)
2. Connect the female end of the power cord to the DC power adapter
3. Connect the 3-pin male plug of the power cord to an electrical outlet.

Warning! *POC-S197/S177/S157 is supplied by a 100 watt power supply and a special adapter.*

If a medical adaptor is connected to the POC-S177, the customer must ensure legal and regulatory compliance that the device meets the law and standards compliance requirements of this hardware.

Switching on the power

Switch on the power switch on the back I/O for POC-S177/S157 (The color indicator is green).

Push down the power button on the front panel for POC-S197 (The color indicator is green).

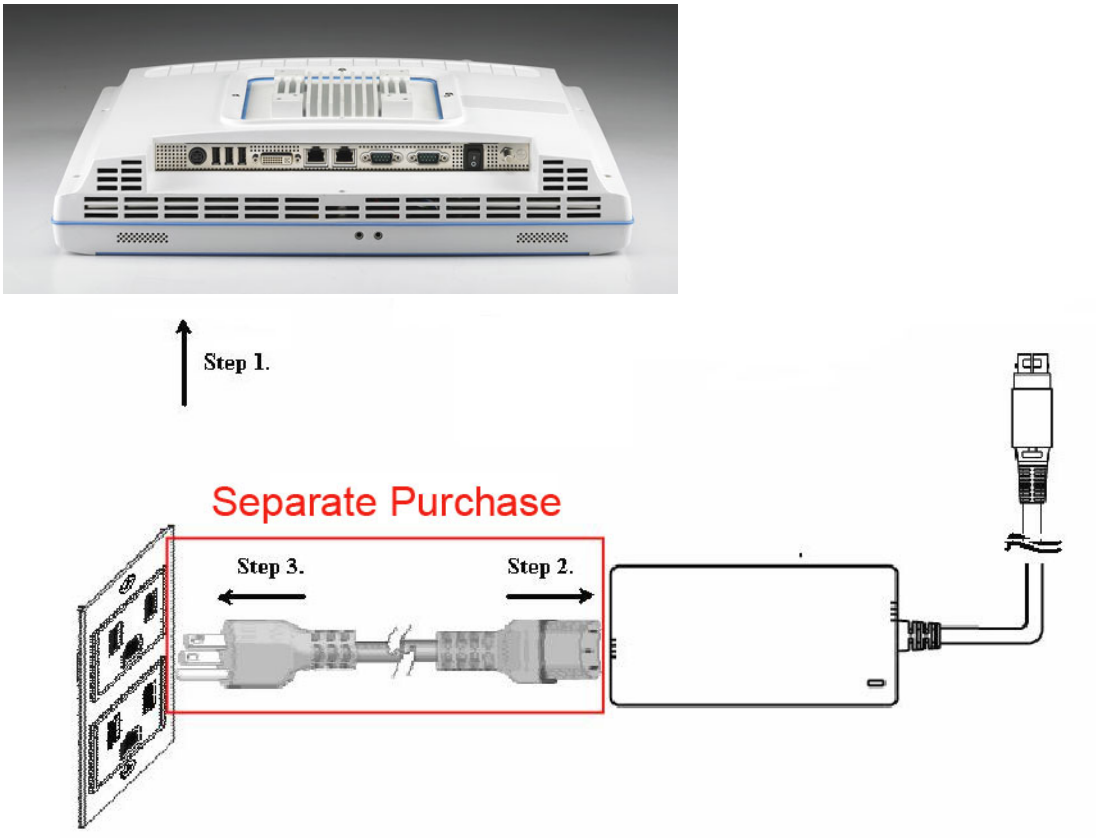
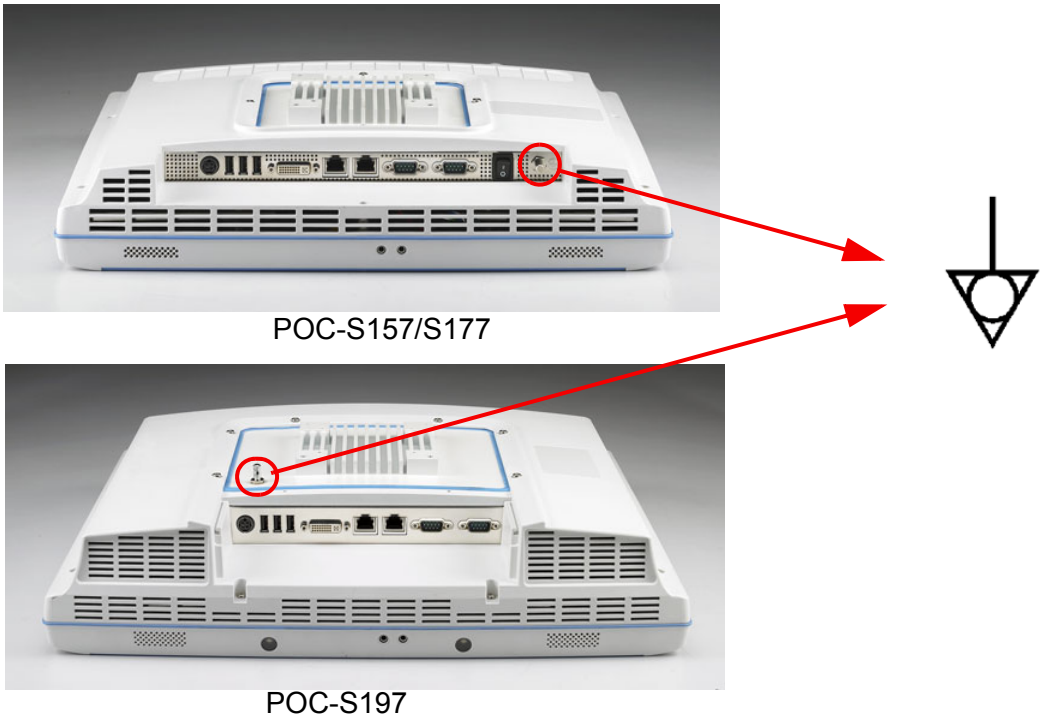


Figure 2.4 Connecting the power cord

2.2.2 Connecting the Ground pin

1. Ready the system and find the equipotential terminal on rear side of POC
   An equipotential terminal is provided to optionally connect to a hospital ground/ earth system).



POC-S157/S177

POC-S197

Figure 2.5 Equipotential terminal pin

2. Prepare the grounding cable and the other terminal link to hospital ground/earth system.

Figure 2.6 Grounding cable with connector

3. Grounding cable plug with equipotential terminal

2.3 Running the BIOS Setup Program

Your POC-S197/S177/S157 is likely to have been properly set up and configured by your dealer prior to delivery. You may still find it necessary to use the BIOS (Basic Input-Output System) setup program to change system configuration information, such as the current date and time or your type of hard drive. The setup program is stored in read-only memory. It can be accessed either when you turn on or reset the panel PC, by pressing the "Crtl+Alt+Del" key on your keyboard immediately after powering on the computer.

The settings you specify with the setup program are recorded in a special area of memory called CMOS RAM. This memory is backed up by a battery so that it will not be erased when you turn off or reset the system. Whenever you turn on the power, the system reads the settings stored in CMOS RAM and compares them to the equipment check conducted during the power on self-test (POST). If an error occurs, an error message will be displayed on screen, and you will be prompted to run the setup program.

2.4 Installing System Software

Recent releases of operating systems from major vendors include setup programs which load automatically and guide you through hard disk preparation and operating system installation. The guidelines below will help you determine the steps necessary to install your operating system on the panel PC hard drive.

Note! *Some distributors and system integrators may have already pre-installed system software prior to shipment of your panel PC.*

If required, insert your operating system's installation or setup diskette into the external diskette drive until the release button pops out.

The BIOS supports system boot-up directly from the CD-ROM drive. You may also insert your system installation CD-ROM disk into your external CD-ROM drive.

Power on or reset the system by pressing the "Ctrl"+"Alt"+"Del" keys simultaneously. The Point of Care Terminal will automatically load the operating system from the diskette or CD-ROM.

If you are presented with the opening screen of a setup or installation program, follow the instructions on screen. The setup program will guide you through preparation of your hard drive, and installation of the operating system.

2.5 Installing the Drivers

After installing your system software, you will be able to set up the Chipset, Graphics, Ethernet, Audio, Touchscreen and Bluetooth functions from your own external CD-ROM drive. All the drivers except the CD-ROM drive driver are stored in a CD-ROM disc entitled "Drivers and Utilities."

The standard procedures for installing the Chipset, Graphics, Audio and Ethernet drivers are described in Chapters 3, 4, 5, and 6 respectively.

The various drivers and utilities in the CD-ROM disc have their own text files which help users install the drivers and understand their functions. These files are a very useful supplement to the information in this manual.

For your reference, the directory of drivers on the "Drivers and Utilities" CD-ROM is:

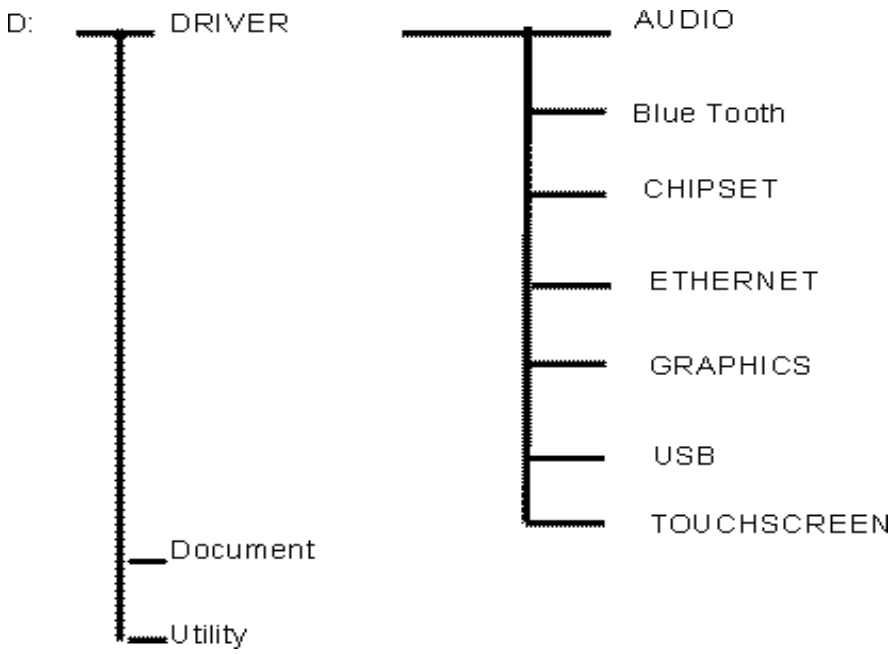


Figure 2.7 The file directory on "Drivers and Utilities" CD-ROM

Note! *The drivers and utilities used for the POC-S197/S177/S157 panel PCs are subject to change without notice. If in doubt, check Advantech's website or contact our application engineers for the latest information regarding drivers and utilities.*

Chapter 3

Chipset and Graphics Setup

3.1 Introduction

The POC-S197/S177/S157 has an onboard display interface. The specifications and features are described as follows:

3.1.1 Chipset

The POC-S197/S177/S157 uses a mobile Intel GS45 Express chipset for its graphic controller. It supports HDMI and CRT monitors. The Mobile Intel GS45 Express chipset are designed for use with Intel® Core™2 Duo, Intel® Core™2 Solo and Intel® Celeron® mobile processors based on the 45-nm process.

3.1.2 Display Memory

Intel® Dynamic Video Memory Technology (Intel® DVMT 5.0)

3.1.3 DVI-I

The POC-S197/S177/S157 has signal channel DVI-I ports. The device accepts one channel of RGB data over three pairs of serial data ports. The POC-S177 is able to drive a DVI display at a pixel rate of up to 165 MHz, supporting WUXGA (1920 x 1200) resolution display.

3.1.4 Display Types

POC-S197/S177/S157 supports a single DVI-I jack for single monitor. The DVI-I jack supports both a DVI Digital I/F and a CRT RGB signal. The analog CRT DAC interface supports a max DAC frequency up to 400 MHz, 24-bit RAMDAC, is DDC2B compliant, and resolutions up to QXGA 2048 x 1536.

3.2 Installation of Chipset Driver

Complete the following steps to install the Chipset driver. Follow the procedures in the flow chart that apply to the operating system that you are using within your POC-S197/S177/S157.

Note! *The following Windows illustrations are examples only. You must follow the flow chart instructions and pay attention to the instructions which appear on your screen.*

Note! *The CD-ROM drive is designated as "D" throughout this chapter.*

Note! *<Enter> means pressing the "Enter" key on the keyboard.*

Note! *Before you install the graphics driver of POC-S197/S177/S157, please ensure you have installed the "Intel Chipset Software Installation Utility". You can find this driver in the Utility CD-ROM.*

Note! *The resolution of the Window's display will be 640 x 480 before you install a graphics driver. Depending on your monitor's native resolution, the black area might be different.*

3.2.1 Installation for Windows XP

1. Double click "infinst_autol.exe" in the D:\Driver\XP\chipset folder. The Install dialog will appear.
2. Click "Next" to continue.

Intel® Chipset Device Software
Intel® Chipset Device Software
Welcome to the Setup Program
This setup program will install the Intel® Chipset Device Software onto this computer. It is strongly recommended that you exit all programs before continuing.
< Back
Next >
Cancel
Intel® Installation Framework

3. Read the License Agreement and click "Yes" to proceed.

Intel® Chipset Device Software
Intel® Chipset Device Software
License Agreement
You must accept all of the terms of the license agreement in order to continue the setup program. Do you accept the terms?
INTEL SOFTWARE LICENSE AGREEMENT (OEM / IHV / ISV Distribution & Single User)
IMPORTANT - READ BEFORE COPYING, INSTALLING OR USING.
Do not use or load this software and any associated materials (collectively, the "Software") until you have carefully read the following terms and conditions. By loading or using the Software, you agree to the terms of this Agreement. If you do not wish to so agree, do not install or use the Software.
Please Also Note:
* If you are an Original Equipment Manufacturer (OEM), Independent Hardware Vendor (IHV), or Independent Software Vendor (ISV), this complete LICENSE AGREEMENT applies;
< Back
Yes
No
Intel® Installation Framework

4. Read file information and click “Next” to proceed.

Intel® Chipset Device Software
Intel® Chipset Device Software
Readme File Information
Refer to the Readme file below to view the system requirements and installation information.
Press the Page Down key to view the rest of the file.
****
* Product: Intel(R) Chipset Device Software
* Release: Production Version
* Version: 9.0.0.1008
* Target Chipset#: Intel(R) 4 Series Chipset
* Date: May 01 2008
****
< Back
Next >
Cancel
Intel® Installation Framework

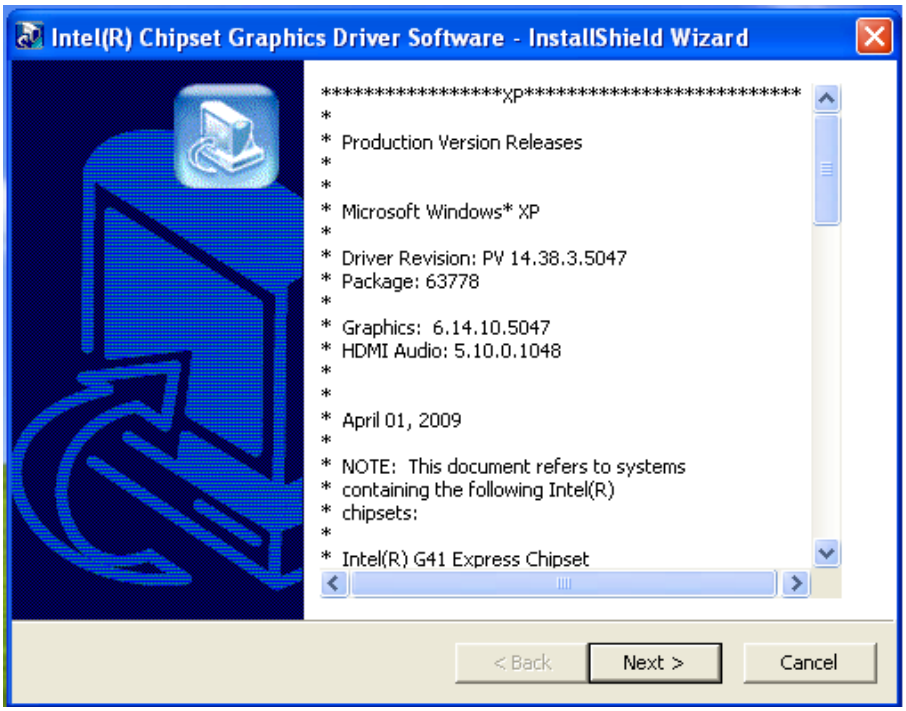
5. Setup Progress information is displayed. Click “Next” to proceed.

Intel® Chipset Device Software
Intel® Chipset Device Software
Setup Progress
Please wait while the following setup operations are performed:
Installing Driver: Intel(R) ICH9 Family USB Universal Host Controller - 2939
Version: 8.3.0.1011
Installing Driver: Intel(R) ICH9 Family USB2 Enhanced Host Controller - 293A
Version: 8.3.0.1011
Installing Driver: Intel(R) ICH9 Family USB2 Enhanced Host Controller - 293C
Version: 8.3.0.1011
Installing Driver: Mobile Intel(R) 45 Express Chipset Series Processor to DRAM Controller - 2A
Version: 8.7.0.1007
Click Next to continue.
Next
Intel® Installation Framework

6. When the “Setup COMPLETE” message appears click “Finish” to restart your computer.

Intel® Chipset Device Software
Intel® Chipset Device Software
Setup Is Complete
intel
You must restart this computer for the changes to take effect. Would you like to restart the computer now?
Yes, I want to restart this computer now.
No, I will restart this computer later.
Click Finish, then remove any installation media from the drives.
Finish
Intel® Installation Framework

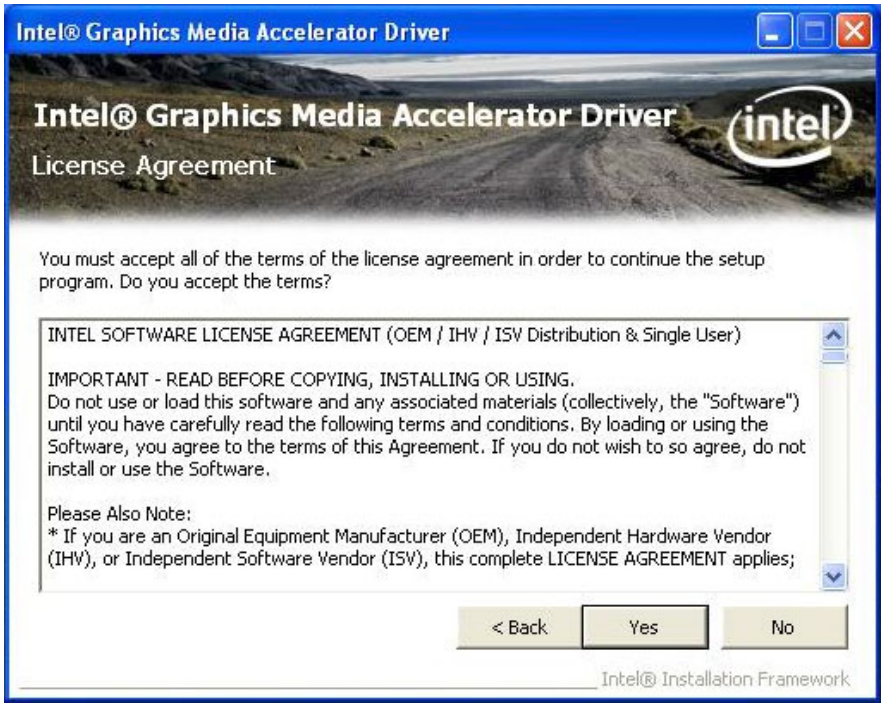
1. Double click “winxp_14383.exe” in D:\Driver\XP\Graphic folder. The Install dialog will appear.
2. Click 'Next' to continue.


Intel(R) Chipset Graphics Driver Software - InstallShield Wizard
**********XP**********
* Production Version Releases
* Microsoft Windows* XP
* Driver Revision: PV 14.38.3.5047
* Package: 63778
* Graphics: 6.14.10.5047
* HDMI Audio: 5.10.0.1048
* April 01, 2009
* NOTE: This document refers to systems containing the following Intel(R) chipsets:
* Intel(R) G41 Express Chipset
< Back
Next >
Cancel

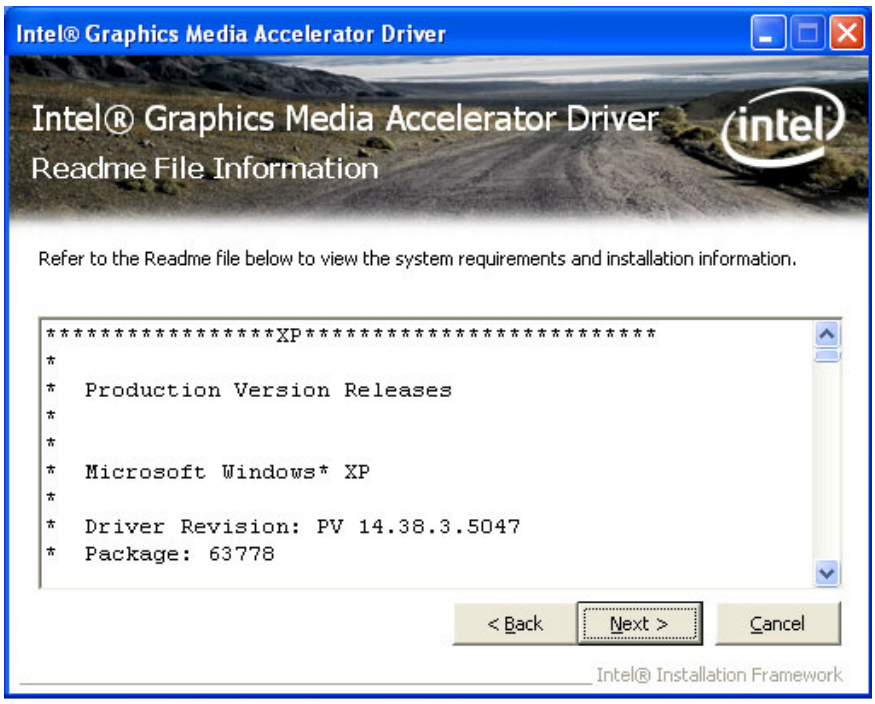
3. Click “Next” to continue.

Intel® Graphics Media Accelerator Driver
Intel® Graphics Media Accelerator Driver
Welcome to the Setup Program
This setup program will install the Intel® Graphics Media Accelerator Driver onto this computer. It is strongly recommended that you exit all programs before continuing. Click Next to continue.
< Back
Next >
Cancel
Intel® Installation Framework

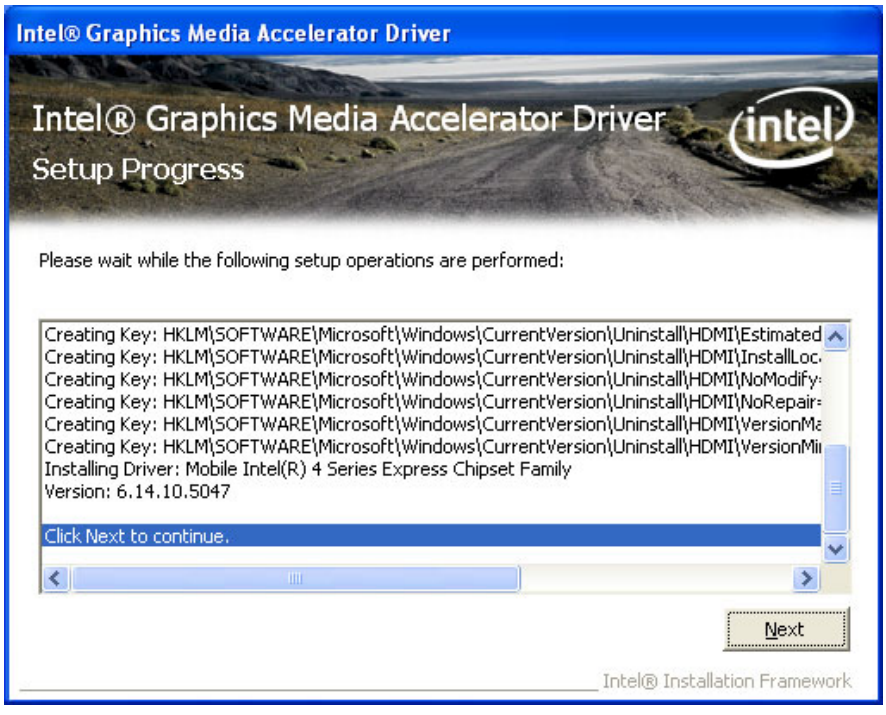
4. Read the License Agreement and click “Yes” to proceed.


Intel® Graphics Media Accelerator Driver
Intel® Graphics Media Accelerator Driver
License Agreement
You must accept all of the terms of the license agreement in order to continue the setup program. Do you accept the terms?
INTEL SOFTWARE LICENSE AGREEMENT (OEM / IHV / ISV Distribution & Single User)
IMPORTANT - READ BEFORE COPYING, INSTALLING OR USING.
Do not use or load this software and any associated materials (collectively, the "Software") until you have carefully read the following terms and conditions. By loading or using the Software, you agree to the terms of this Agreement. If you do not wish to so agree, do not install or use the Software.
Please Also Note:
* If you are an Original Equipment Manufacturer (OEM), Independent Hardware Vendor (IHV), or Independent Software Vendor (ISV), this complete LICENSE AGREEMENT applies;
< Back
Yes
No
Intel® Installation Framework

5. Readme file information and click “Next” to proceed.


Intel® Graphics Media Accelerator Driver
Intel® Graphics Media Accelerator Driver
Readme File Information
Refer to the Readme file below to view the system requirements and installation information.
**********XP**********
* Production Version Releases
* Microsoft Windows* XP
* Driver Revision: PV 14.38.3.5047
* Package: 63778
< Back
Next >
Cancel
Intel® Installation Framework

6. When the “Click Next to continue” message appears click “Next” to proceed.



7. When the “Setup Is Complete” message appears click “Finish” to restart your computer.

Intel® Graphics Media Accelerator Driver
Intel® Graphics Media Accelerator Driver
Setup Is Complete
intel
You must restart this computer for the changes to take effect. Would you like to restart the computer now?
Yes, I want to restart this computer now.
No, I will restart this computer later.
Click Finish, then remove any installation media from the drives.
Finish
Intel® Installation Framework

Chapter 4

Audio Interface

4.1 Introduction

The POC-S197/S177/S157's onboard audio interface provides high-quality stereo sound by using the ALC888 audio controller from Realtek. The ALC888 series are high performance 7.1+2 channel High Definition Audio Codecs providing ten DAC channels that simultaneously support 7.1 sound playback, plus 2 channels of independent stereo sound output (multiple streaming) through the front panel stereo outputs.

All analog jacks are input and output capable, and headphone amplifiers are also integrated at each analog output. All analog I/Os can be re-tasked according to user definitions, or automatically switched depending on the connected device type.

4.2 Installation of Audio Driver

Before installing the audio driver, please take note of the procedures detailed below. You must know which operating system you are using on your POC-S197/S177/S157. Refer to the corresponding installation flow chart. Just follow the steps in the flow chart. You can quickly and successfully complete the installation, even if you are not familiar with instructions for Windows.

This setup program will install the audio driver and Realtek utility onto your system.

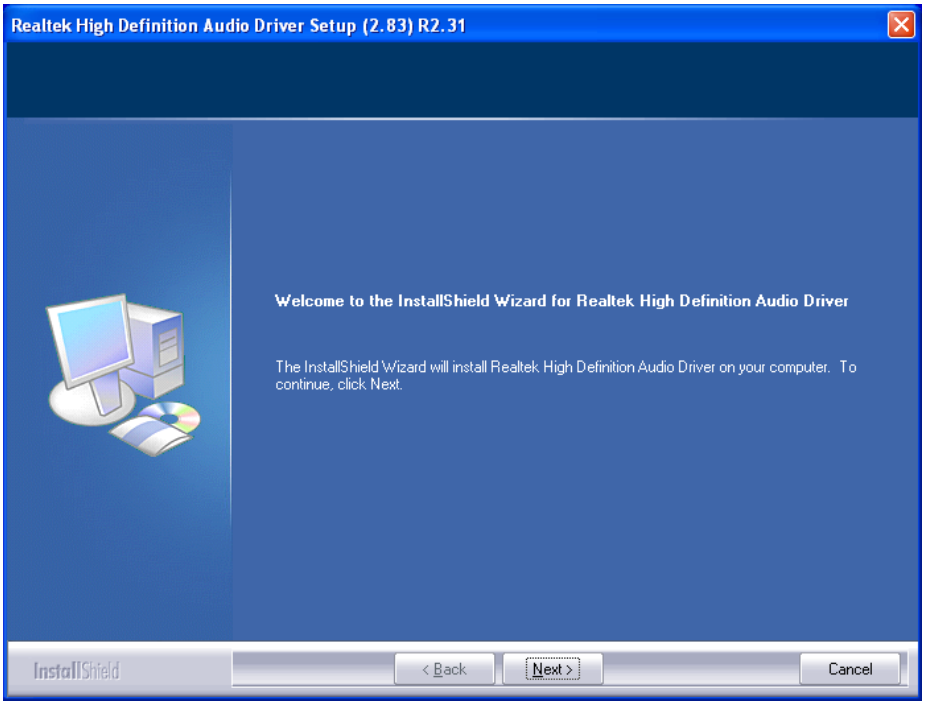
Note! *The following Windows illustrations are examples only. You must follow the flow chart instructions and pay attention to the instructions which appear on your screen.*

Note! *The CD-ROM drive is designated as "D" throughout this chapter.*

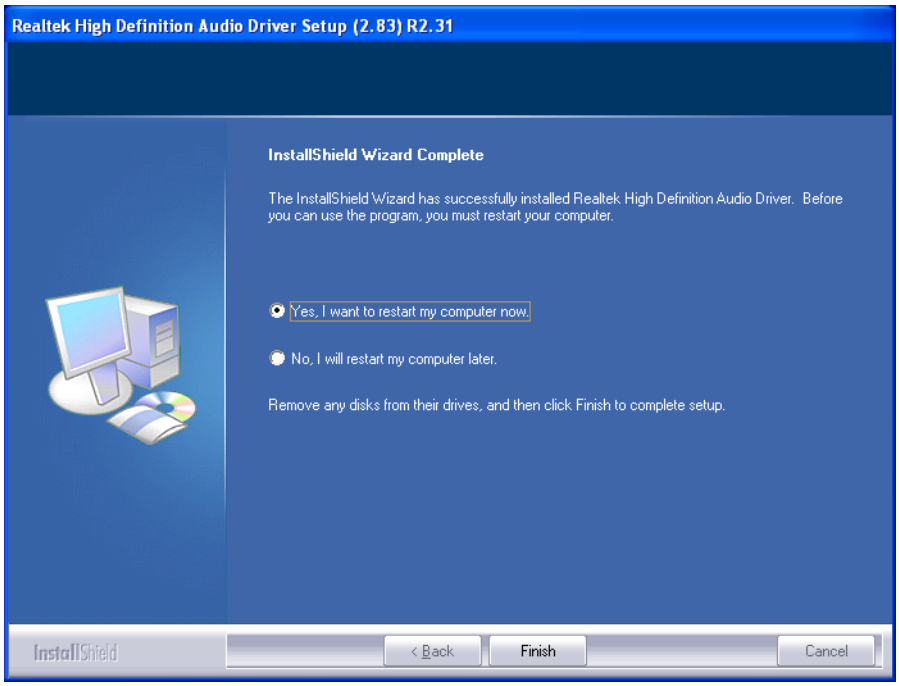
Note! *<Enter> means pressing the "Enter" key on the keyboard.*

4.3 Installation for Windows 2000/XP

1. Double Click “setep.exe” in the D:\Driver\XP\Audio folder. The Install dialog will appear.
2. Click “Next” to continue.
   The install program will install a driver and utility. It will spend a period of time processing.


Realtek High Definition Audio Driver Setup (2.83) R2.31
Welcome to the InstallShield Wizard for Realtek High Definition Audio Driver
The InstallShield Wizard will install Realtek High Definition Audio Driver on your computer. To continue, click Next.
InstallShield
< Back
Next >
Cancel

3. When the “InstallShield Wizard Complete” message appears click “Finish” to restart your computer.


Realtek High Definition Audio Driver Setup (2.83) R2.31
InstallShield Wizard Complete
The InstallShield Wizard has successfully installed Realtek High Definition Audio Driver. Before you can use the program, you must restart your computer.
Yes, I want to restart my computer now.
No, I will restart my computer later.
Remove any disks from their drives, and then click Finish to complete setup.
InstallShield
< Back
Finish
Cancel

4.4 Further Information

For further information about the Audio interface installation for your POC-S197/S177/S157, including driver updates, troubleshooting guides and FAQ lists please visit the following web resources.

Realtek website: www.realtek.com.tw

Advantech websites: www.advantech.com

www.advantech.com.tw

Chapter 5

PCI Express Ethernet Interface

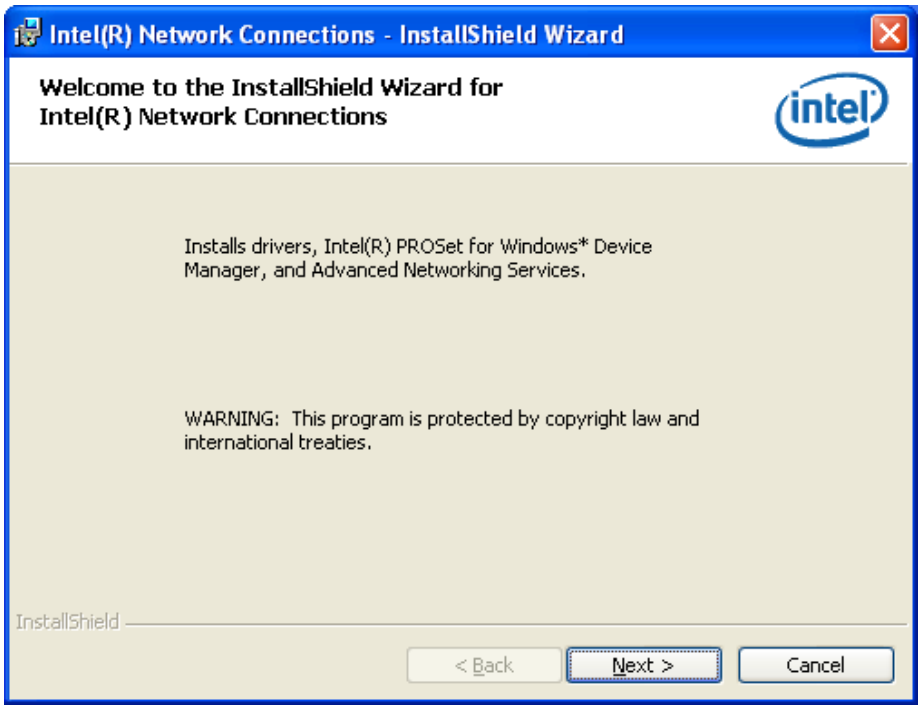
5.1 Introduction

The POC-S197/S177/S157 is equipped with a high performance PCIe Ethernet chipset Intel® 82574L which is fully compliant with the 1 Gbps IEEE 802.3, 802.3u, 802.3ab specifications. Full duplex operation at 10/100/1000 Mbps standard. The Ethernet port provides a standard RJ-45 jack.

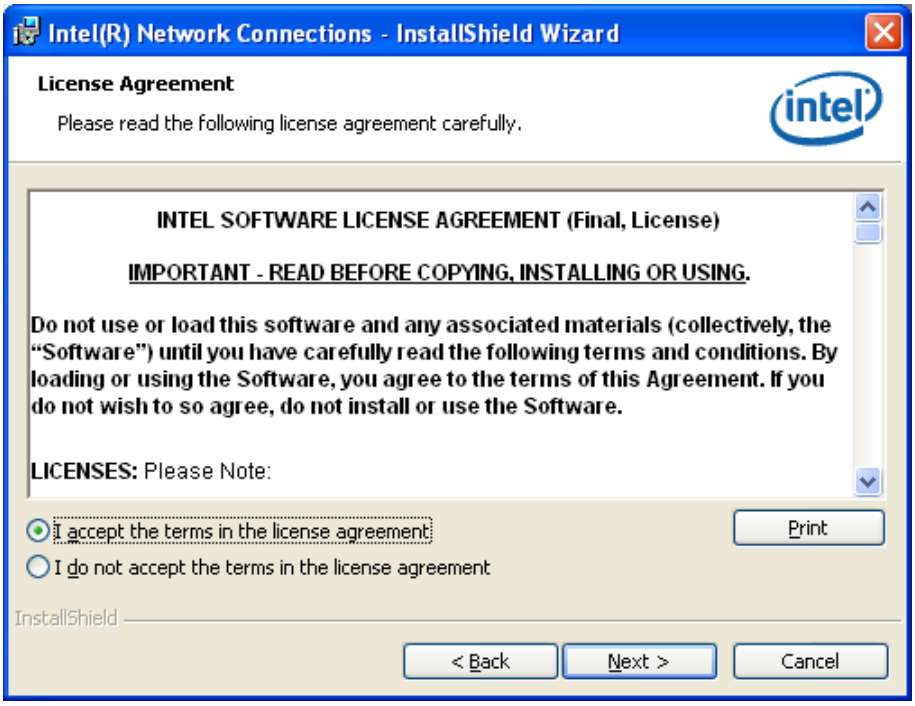
5.2 Installation of Ethernet Driver

5.2.1 Installation for Windows XP

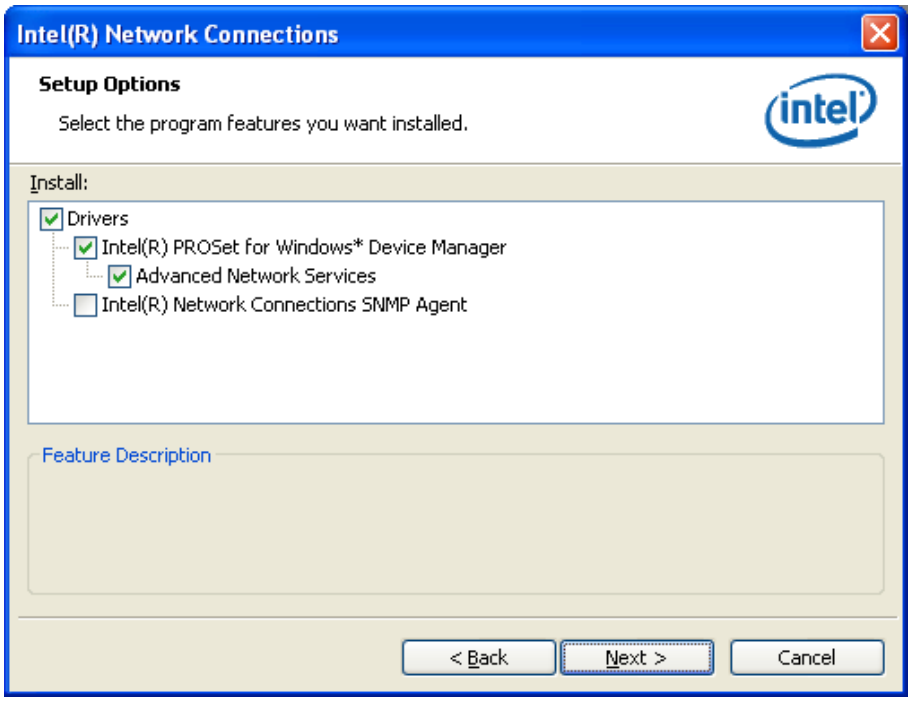
1. Double click “Network Adapter Drivers for Windows XP and Windows Server 2003.exe” in the D:\Driver\XP folder. The Install dialog will appear.
2. Click “Next” to continue.


Intel(R) Network Connections - InstallShield Wizard
Welcome to the InstallShield Wizard for Intel(R) Network Connections
intel
Installs drivers, Intel(R) PROSet for Windows* Device Manager, and Advanced Networking Services.
WARNING: This program is protected by copyright law and international treaties.
InstallShield
< Back
Next >
Cancel

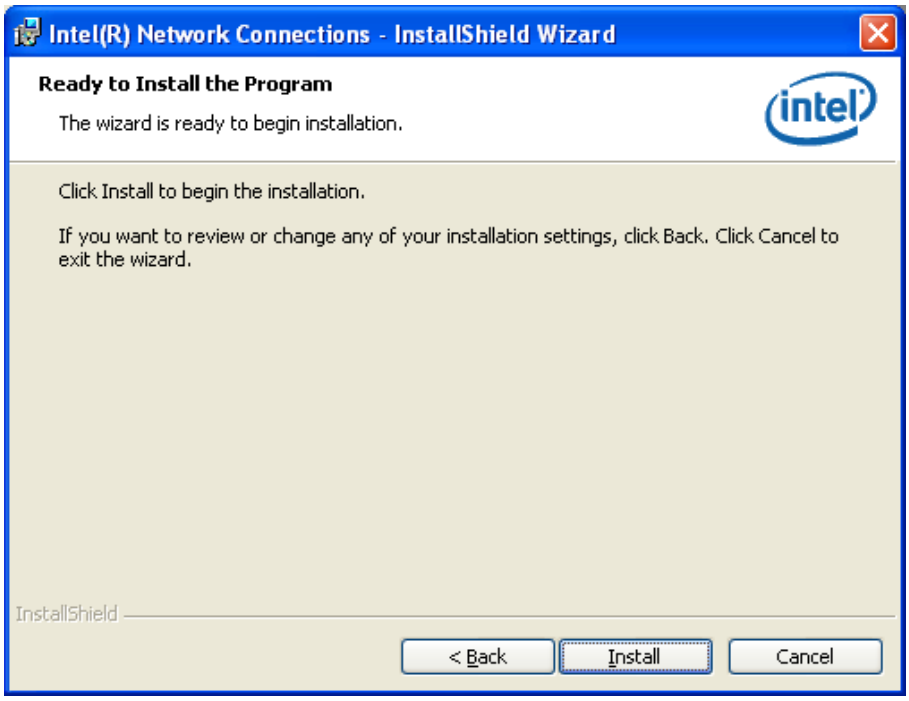
3. Choose the ”I accept the terms in the license agreement” and click “Next” to continue.


Intel(R) Network Connections - InstallShield Wizard
License Agreement
Please read the following license agreement carefully.
INTEL SOFTWARE LICENSE AGREEMENT (Final, License)
IMPORTANT - READ BEFORE COPYING, INSTALLING OR USING.
Do not use or load this software and any associated materials (collectively, the "Software") until you have carefully read the following terms and conditions. By loading or using the Software, you agree to the terms of this Agreement. If you do not wish to so agree, do not install or use the Software.
LICENSES: Please Note:
I accept the terms in the license agreement
I do not accept the terms in the license agreement
Print
InstallShield
< Back
Next >
Cancel

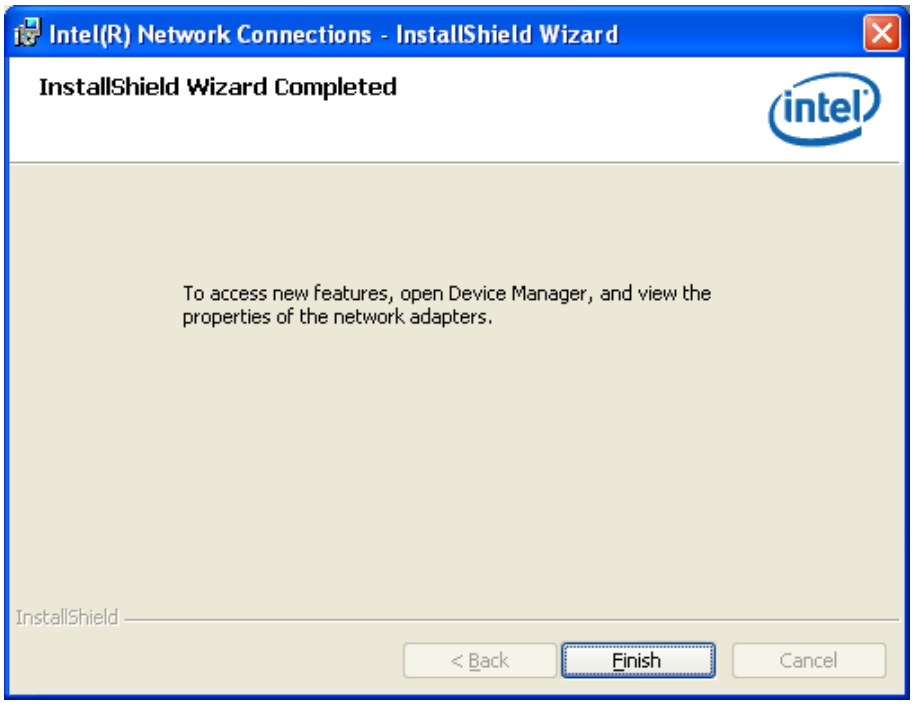
4. Setup Options file information and click “Next” to proceed.



5. Click “Install” to begin the installation.


Intel(R) Network Connections - InstallShield Wizard
Ready to Install the Program
The wizard is ready to begin installation.
Click Install to begin the installation.
If you want to review or change any of your installation settings, click Back. Click Cancel to exit the wizard.
InstallShield
< Back
Install
Cancel

6. When the “InstallShield Wizard Complete” message appears click “Finish”.


Intel(R) Network Connections - InstallShield Wizard
InstallShield Wizard Completed
To access new features, open Device Manager, and view the properties of the network adapters.
InstallShield
< Back
Finish
Cancel

5.3 Further Information

For further information about the installation on your POC-S197/S177/S157, including driver updates, troubleshooting guides and FAQ lists please visit the following web resources.

Intel website: www.intel.com

Advantech websites: www.advantech.com

www.advantech.com.tw

Chapter 6

Touch Panel Interface

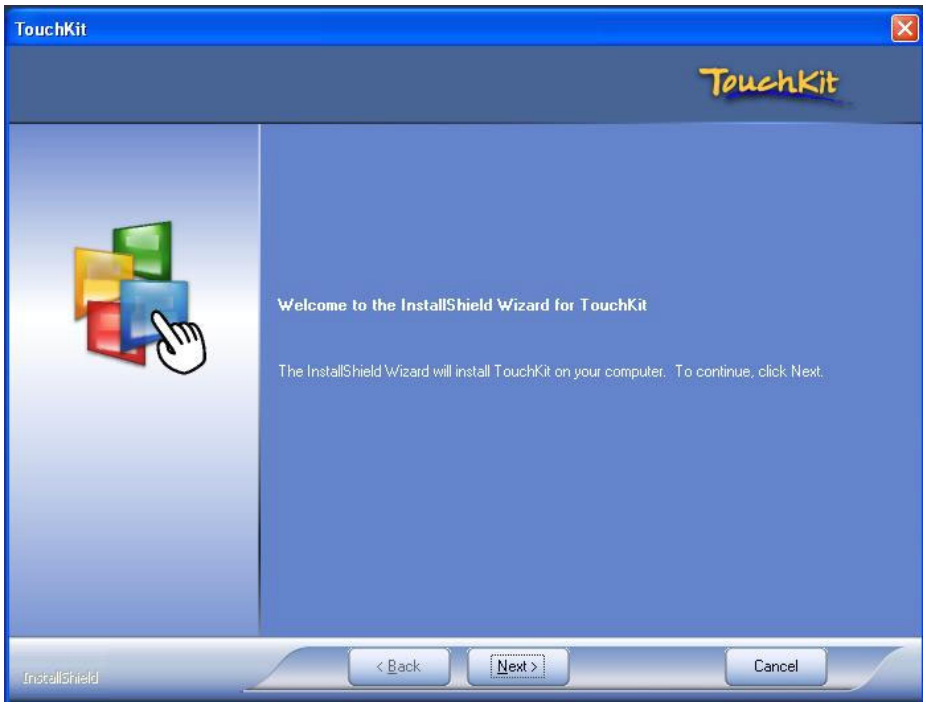
6.1 Introduction

The POC-S197/S177/S157 is supported by a system integrated touch panel. The touch panel controller is controlled by the system COM interface.

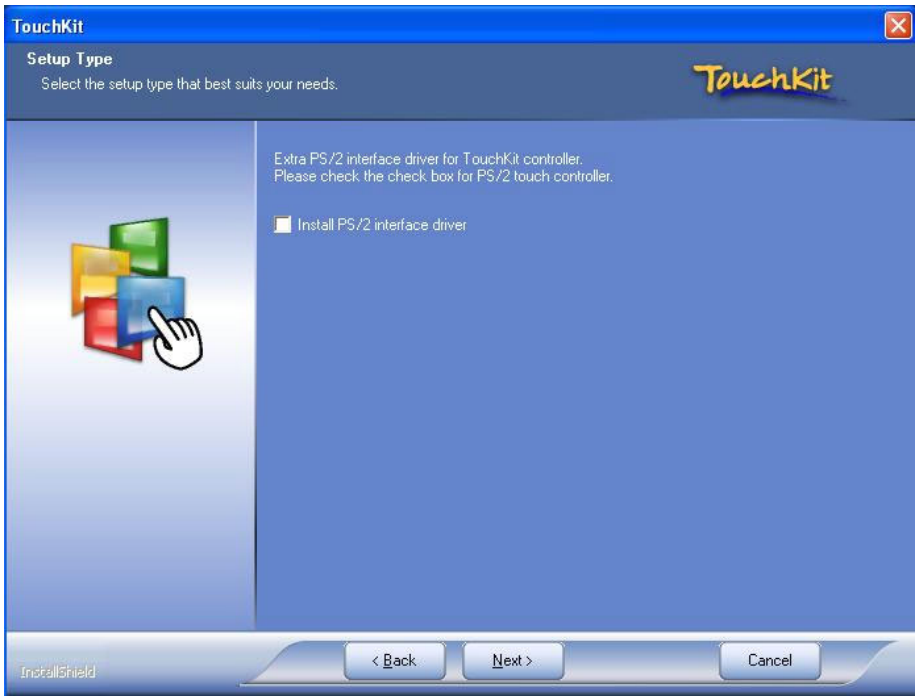
6.2 Installation of Touch Panel Driver

6.2.1 Installation for Windows XP

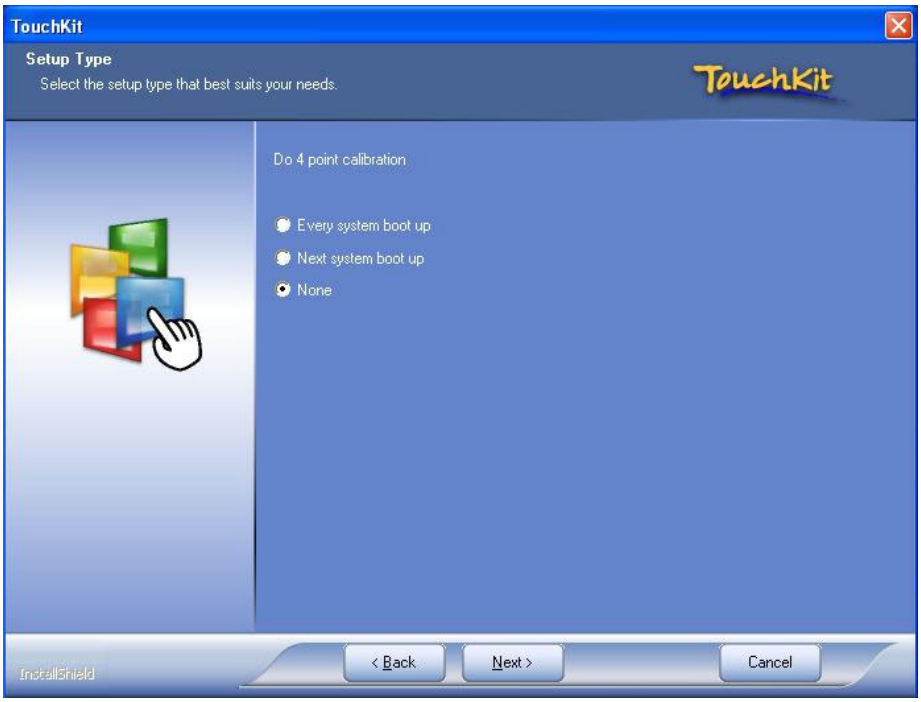
1. Double Click “setep.exe” in the D:\Driver\XP\Touch folder. The Install dialog will appear.
2. Click ”Next” to continue.


TouchKit
TouchKit
Welcome to the InstallShield Wizard for TouchKit
The InstallShield Wizard will install TouchKit on your computer. To continue, click Next.
InstallShield
< Back
Next >
Cancel

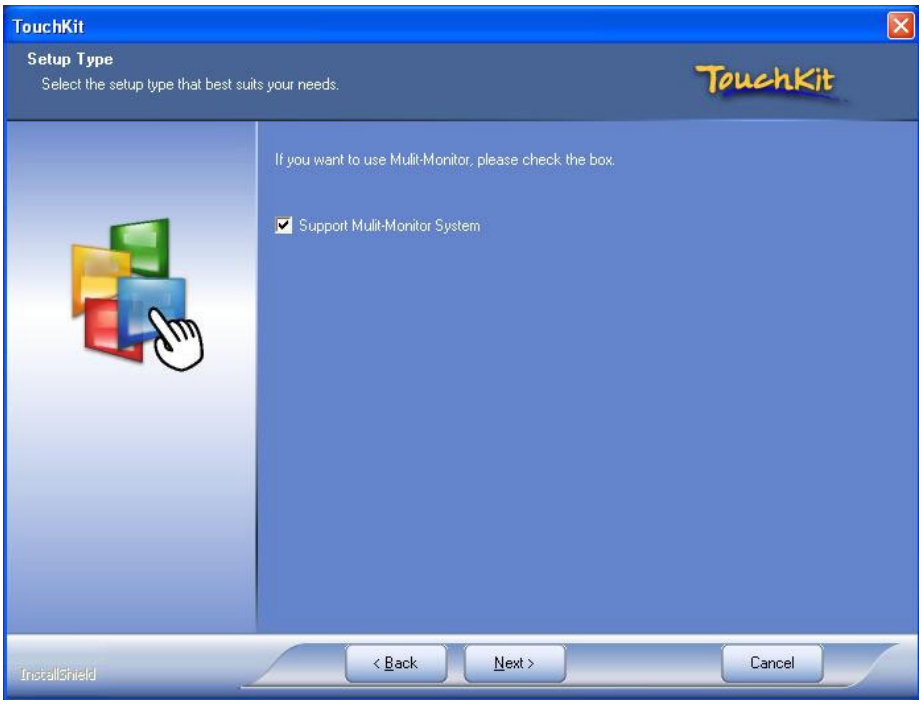
3. Click “Next” to continue.
The POC-S197/S177/S157ís touch controller is controlled by COM6, please do not select the “Install PS/2 interface driver”.



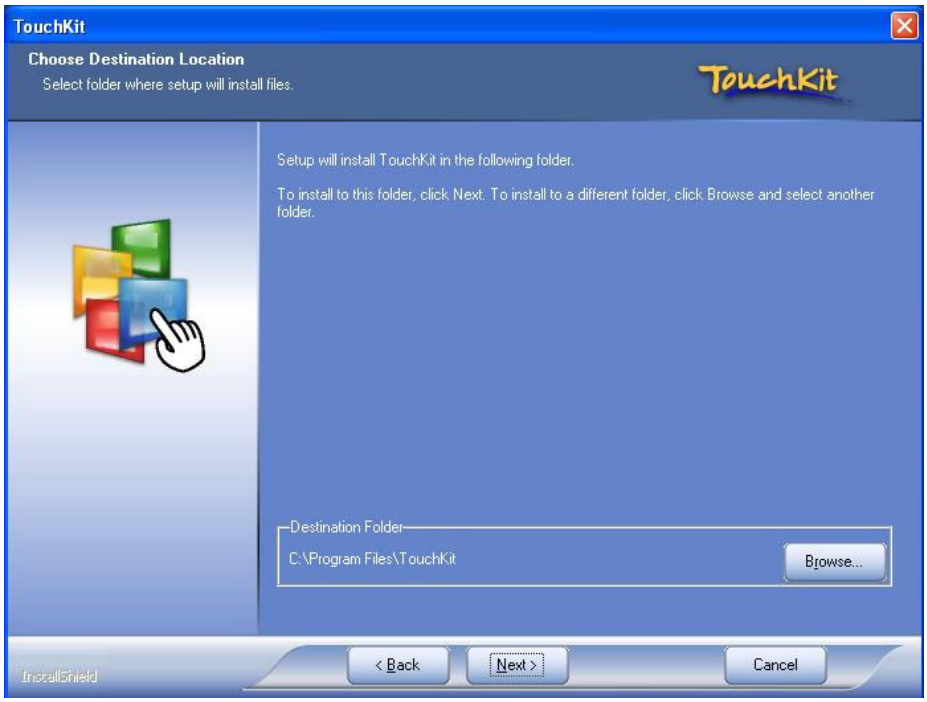
4. Click “Next” to continue.
Please select “None” for Do 4-point calibration; the driver install program will do this 4-point calibration when the install completes.



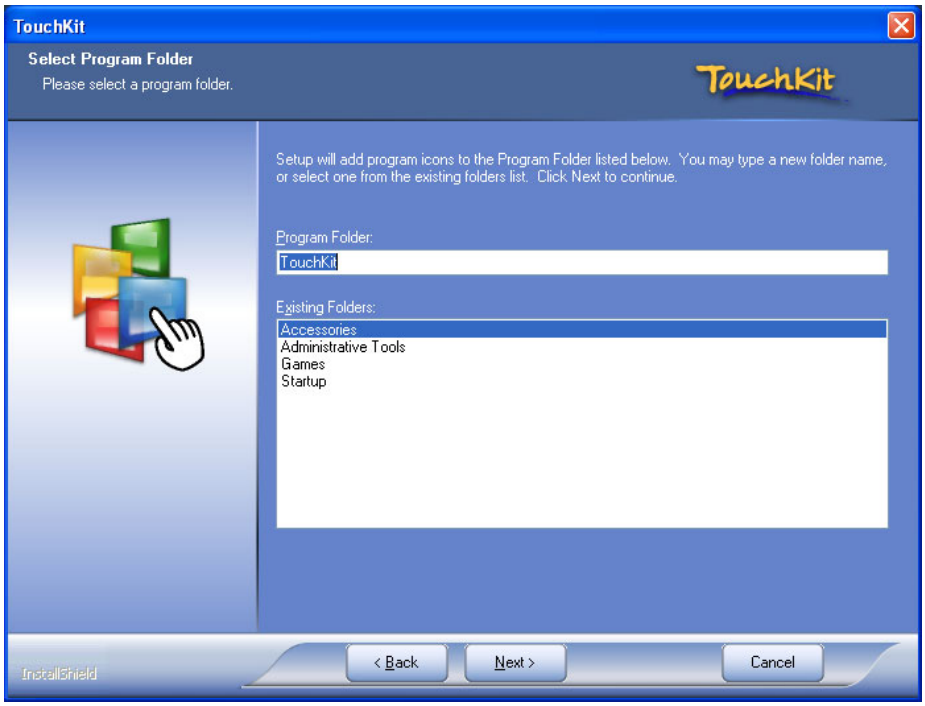
5. Click “Next” to continue.
Please select “Support Multi-Monitor System”.



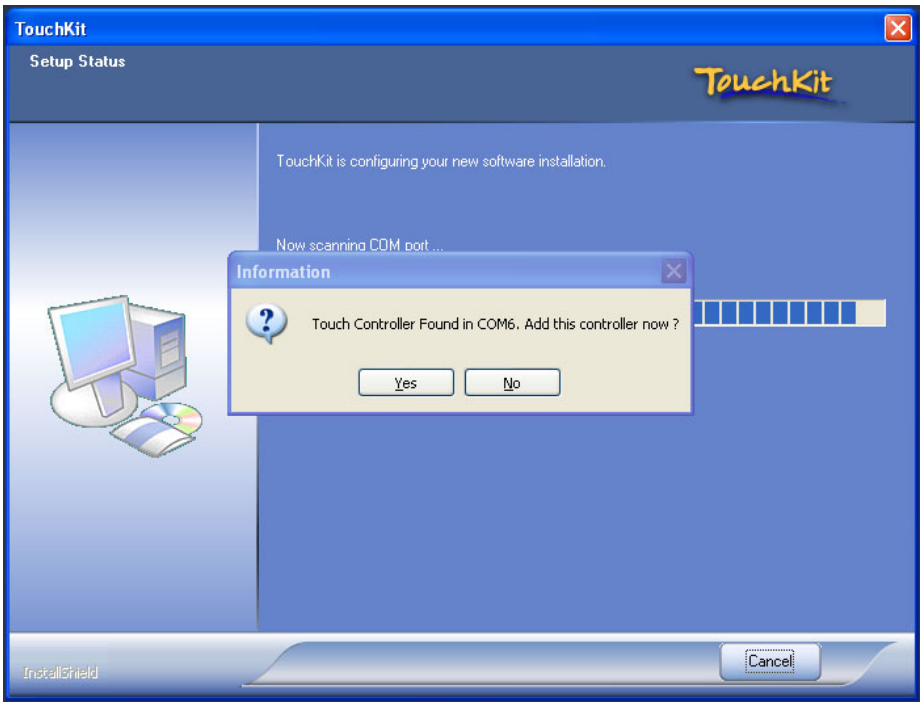
6. Click “Next” to continue.
If you want to change the driver destination folder, you can click the “Browse” button to change the folder.


TouchKit
Choose Destination Location
Select folder where setup will install files.
TouchKit
Setup will install TouchKit in the following folder.
To install to this folder, click Next. To install to a different folder, click Browse and select another folder.
Destination Folder
C:\Program Files\TouchKit
Browse...
InstallShield
< Back
Next >
Cancel

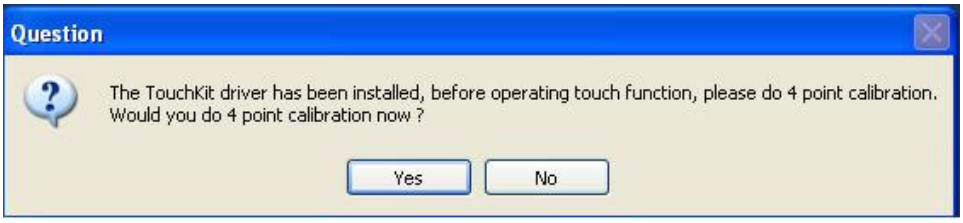
7. Click “Next” to continue.



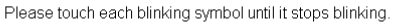
8. Click “Yes” to continue.
The install program will search the touch screen controller, and find it on COM6.



9. Click “Yes” to continue.
Please do 4-point calibration to calibrate the touchscreen.


Question
The TouchKit driver has been installed, before operating touch function, please do 4 point calibration.
Would you do 4 point calibration now ?
Yes
No

10. Touch “X” at each of the four corners once on the panel.
Please touch each “X” icon displayed in the corner until the icon stops blinking.



6.3 Further information

For further information about the installation on your POC-S197/S177/S157, including driver updates, troubleshooting guides and FAQ lists please visit the following web resources.

Advantech websites: www.advantech.com

www.advantech.com.tw

Chapter 7

Utilities and Hot Fixes

7.1 Introduction

The POC-S197/S177/S157 system needs specific utilities or hot fixes to support special functions.

7.2 Wakeup by External USB Device at S3 Resume (Wakeup)

POC-S197/S177/S157 supports three different sleep (suspend) modes, they are:

1. S1: Power On Suspend; system will stop the clock, turn off LCD backlight, but keep all power on. A user can press any key (by mouse or keyboard) to wakeup system.
2. S3: Suspend to RAM; system will stop the clock, turn off most power rails, not including memory power. All necessary information is saved into memory. In this sleep mode, the system needs a hot fix to wakeup the system by USB mouse or keyboard.
3. S4: Suspend to Disk (Hibernation); system will stop the clock, turn off most power, including the memory power. And save all necessary information to hard disk. In this sleep mode, a user needs to press the power button to wakeup the system.

7.2.1 Installation for Windows XP

1. Double click the “USBRG.REG” in the D:\Driver\USB folder
2. Click “Yes” to install this registry information.
3. Click “OK” to close the “successfully installed” information window.

7.3 Windows Audio Volume Application

On the front panel of the POC-S197/S177/S157 system, there are two buttons to control the speaker volume.

This speaker volume is adjustable pressing a button and it does not need any software utility. However, this speaker volume button cannot modify Windows volume control.

Appendix A

Windows Display Hot Key Function

A.1 Windows Display Hot Key Function

If a user wants to switch the display content to different a display device, such as:

1. Internal LCD Panel (Notebook)
2. External CRT Monitor (Monitor)
3. External DVI Monitor (Digital Display)

They can press the hot key below to switch the display device.

Hot Key	Display Device
Ctrl+Alt+F1	External CRT Monitor
Ctrl+Alt+F3	Internal LCD Panel
Ctrl+Alt+F4	External DVI Monitor

Windows will switch the display content to dedicated display device soon.

Appendix B

Description of Connectors

B.1 Description of Connectors

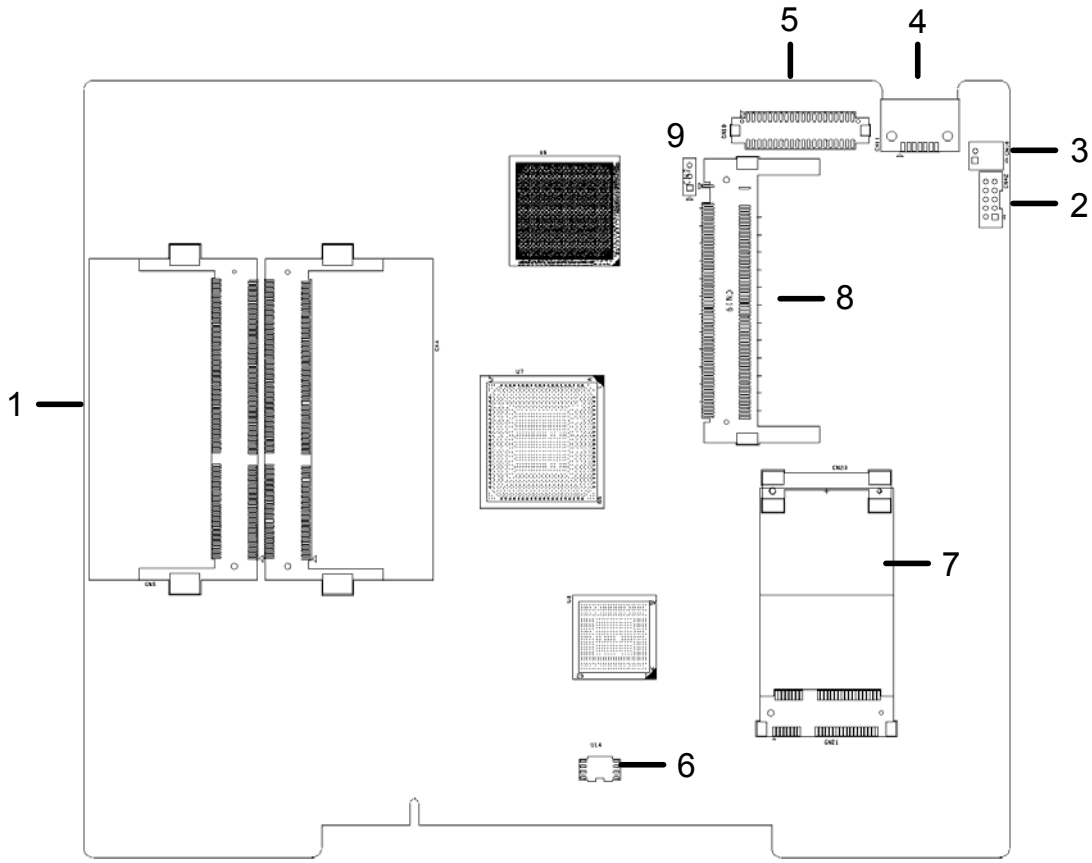


Figure B.1 Top side global view of POC-S1x7 motherboard indicates connector locations

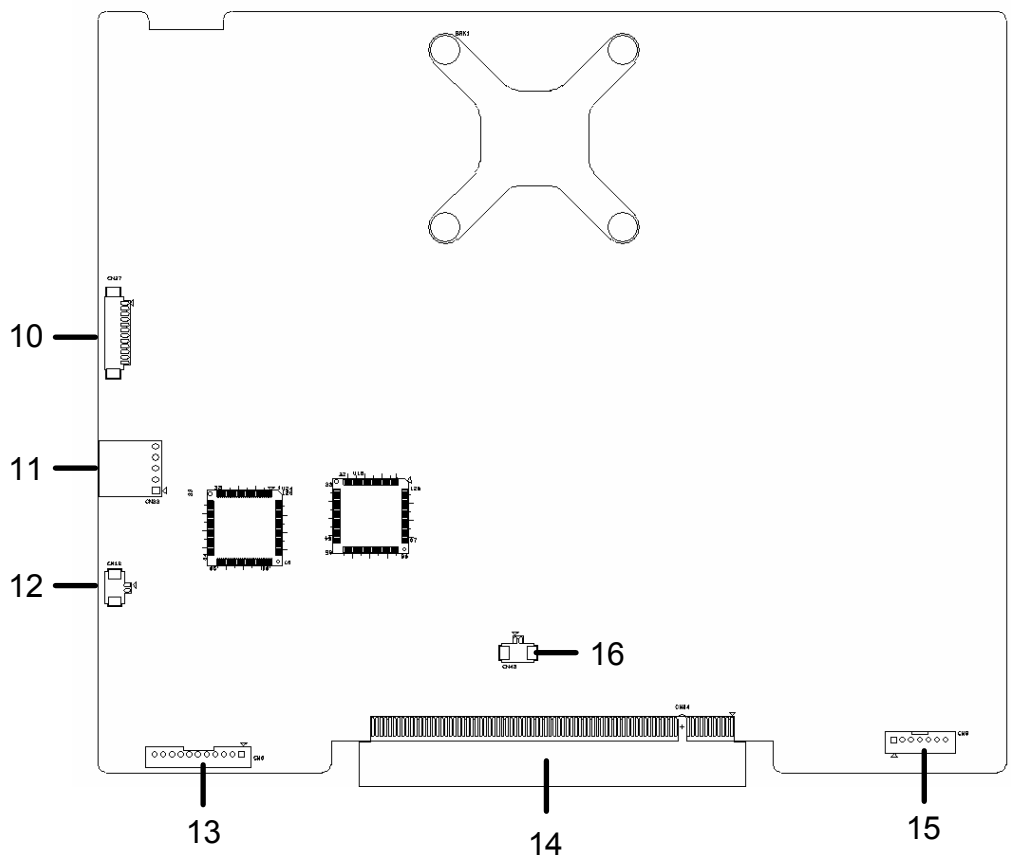


Figure B.2 Bottom side global view of POC-S1X7 motherboard indicates connector locations

No.	Description	No.	Description
1	DDR 2 S.O. DIMM Socket Connector*2	9	LVDS VCC option
2	Internal USB Connector	10	EC Connector
3	SATA Power Connector	11	Touchscreen I/F Connector
4	SATA Connector	12	Touch LED connector
5	LVDS connector	13	Internal Audio Connector (Line, HP Out& Line, MIC In & Speaker Out)
6	BIOS	14	I/O Bus Connector
7	Mini PCI-E Socket	15	Inverter Connector
8	Mini PCI Socket	16	RTC Battery Connector

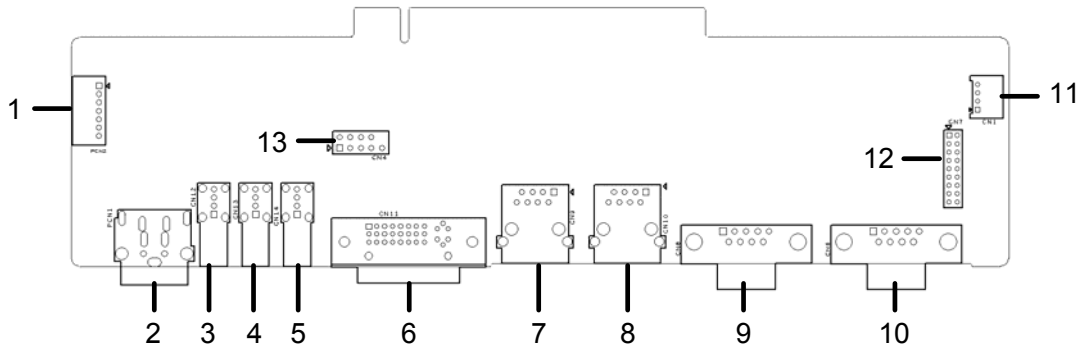


Figure B.3 Top side global view of POC-S1X7 IO indicates connector locations

No.	Description	No.	Description
1	Battery Connector	8	RJ-45 Jack (LAN 2)
2	DC-in Power Connector	9	Isolation COM2 Jack
3	USB connector	10	Isolation COM1 Jack (RS232, RS422, RS485)
4	USB connector	11	Power button LED Connector
5	USB connector	12	COM1 RS-232/422/485 Selection Jumper (Default: RS232)
6	DVI Connector	13	USB Header
7	RJ-45 Jack (LAN 1)		

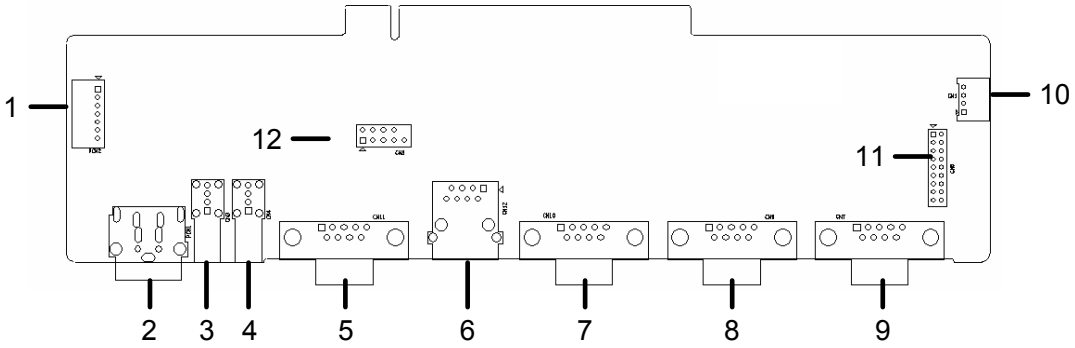


Figure B.4 Top side global view of POC-S1X7 2nd I/O indicates connector locations

No.	Description	No.	Description
1	Battery Connector	7	Isolation COM3 Jack
2	DC-in Power Connector	8	Isolation COM2 Jack
3	USB connector	9	Isolation COM1 Jack (RS-232, RS-422, RS-485)
4	USB connector	10	Power Button LED Connector
5	COM4 Jack (Without isolation)	11	COM1 RS-232/422/485 Selection Jumper (Default: RS232)
6	RJ-45 Jack (LAN 1)	12	USB Header

Appendix C

VESA Mounting

C.1 Install VESA Mounting

The Panel PC also provides standard VESA mounting to help system integrators conveniently integrate the panel PC into their system.

Never use the mounting brackets except those provided by Advantech to prevent the unreliable fixing of the Panel PC. VESA mount installation should be operated by professional technician, please contact a service technician or your retailer if you need this service.

VESA mounting dimensions (75 x 75 mm, 100 x 100 mm)

Installation instructions follow:

1. The wall-mounting attachment is comprised of two parts: one back bracket, and one mounting bracket.
2. First attach the back bracket to the rear cover of the Panel PC, securing it in place with four of the philips-head screws provided.
3. Mount the mounting bracket on the wall or other flat surface. The back bracket slides vertically from the top into the mounting bracket. It can be secured to the mounting bracket by screwing four of the philips-head screws provided through the corresponding holes at the tops of the mounting bracket.

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